

Alternative Power Report

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News on Alternative Power Sources



www.powersys.com | +1-651-905-8400 | info@powersys.com

Moving from ICE To Alternative Power

As manufacturers continue to shift their equipment production from ICE to alternative power sources, they need the latest information. That's why analysts at Power Systems Research continue to revise our global data and forecasts to provide the freshest picture available.

Unsold Chinese EVs Are Piling Up At European Ports *Situation Concerns European Governments*

By *Guy Youngs*, Forecast & Adoption Lead



The threat of masses of cheap EVs made in China has governments concerned in Europe and the US. The USA has introduced a bill that would raise the tariff on EVs from China to 100% to protect US auto workers "from the existential threat posed by China" but Europe has

no such tariff protections. The lack of high import tariffs has encouraged Chinese manufacturers to look to Europe as a place where they can send boatloads (literally) of electric cars.

A report by the Financial Times claims that Chinese manufacturers are sending more EVs to Europe than they can sell, which has led to thousands of EVs being parked at port facilities. The port operators are displeased because the glut of cars is interfering with other port activities. Some now say they are no longer ports but rather car parks for newly arrived Chinese EVs.

Source: *CleanTechnica* [Read The Article](#)



PSR Analysis. The whole Chinese EV car supply situation is absolute chaos and will only get worse when EV manufacturers like BYD introduce their own ocean going car carriers. Given this scenario, its becoming very hard to look past allegations of dumping, so we can reasonably expect that the EU will also consider tariffs.

Editor's Note: This monthly report includes news and analysis about EV and alternative power sources such as batteries and fuel cells from analysts at Power Systems Research.

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New power source installations vary across industry segments. Contact PSR for data on your specific application needs.

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European Commission Sharpens Inquiry Into Chinese EV Subsidies

Last October, the European Commission opened an inquiry into whether Chinese automakers are the beneficiaries of such significant subsidies by the Chinese government that they have an unfair economic advantage over domestic manufacturers. The question is ridiculous, of course. Everyone on Earth knows the Chinese government has been providing massive support to its automotive sector for 20 years.

China has been open about its commitment to electric car manufacturing. It has told everyone its plans and then made those plans a reality. So, it should come as no surprise that Chinese companies can build electric cars in China, ship them overseas, and still undercut the price of electric cars from domestic manufacturers by 25% or more.

What the EU Commission is doing is trying to find a way to lock the barn door after the horses have bolted and do it in a way that is not blatantly illegal under international law.

Source: *CleanTechnica* [Read The Article](#)

PSR Analysis: Trade disputes have been part of international affairs for as long as there have been nations.

The EU is trying to balance the joy of cheaper products against the need to protect jobs within the EU. The electric car price wars in China suggest there is massive oversupply in that country, so it is natural for its manufacturers to seek new markets.

Fool's Gold May Be Worth More than Previously Believed

In our childhood, many of us would have found iron pyrites and mistakenly believed it was gold. The disappointment of finding out it was Fools Gold may be over. Fool's gold could kick off this century's 'gold rush' after scientists discovered it contains lithium.

Scientists at West Virginia University discovered a surprising amount of lithium in 15 rock samples of iron pyrite.

Source: *Daily Mail (via MSN)* [Read The Article](#)

PSR Analysis: Sulphur-rich pyrite doesn't require as many resources during the extraction process which means its environmental impact is much lower than the lithium-ion alternative. And fool's gold is found in quartz veins that is mined throughout the world, which means there could be much more lithium hiding through the world than was originally thought.



Hydrogen Engine from Hyundai and Kia Is Very Different

Hyundai and Kia have announced that they plan to work together to create a new hydrogen engine that will better overcome the challenges faced by previous generations of the technology. A lack of refueling infrastructure has been a top issue in this area.

With a focus on this issue, the goal of the collaboration between Hyundai and Kia is to greatly enhance the range of the hydrogen engine. In fact, they are aiming for an unprecedented range to greatly improve the appeal of using H2 for zero-emission transport and transportation.

Source: *Hydrogen Fuel News* [Read The Article](#)

PSR Analysis: There has yet to be a passenger vehicle that is ready for drivers to purchase and use for their everyday needs in a realistic, practical, and affordable way. As a result, in order to overcome the lack of infrastructure, the range and appeal of this, will need to be massive, and in fact it may not be possible.

World's First Hydrogen Station for Commercial Trucks Opens

FirstElement Fuels has opened the world's first large-scale hydrogen fueling station for heavy-duty commercial trucks just outside the Port of Oakland. Located near the Port of Oakland, the company claims its hydrogen pumps can "fill"

a truck's hydrogen tanks in as little as ten minutes, which works out (in their math) to as many as 200 trucks per day.

But MAN Trucks CEO, Alexander Vlaskamp, said it best when he said that it was "impossible" for hydrogen to effectively compete with BEVs. He's right – on a level playing field, there is absolutely no reason to believe hydrogen has any kind of future.

Source: *Electrek* [Read The Article](#)

PSR Analysis: The tide of public opinion may already be starting to turn against hydrogen. Outlets that may never have questioned a manufacturer's claims about a hydrogen-fueled vehicle a few years ago now seem more than willing to call those claims out. FirstElement says that its supplier, Air Liquide in Las Vegas, uses natural gas as "feedstock" for its hydrogen so its therefore "dirty" hydrogen and isn't very eco friendly.



Sodium-Ion Battery Could Charge An Electric Vehicle In Seconds

The electric vehicle revolution has barely gotten under way, and already the goalposts for charging times are moving. Lithium-ion batteries have been the energy storage technology of choice for electric vehicle stakeholders ever since the early 2000s, but a shift is coming.

Sodium-ion battery technology is one new technology to emerge, and new research indicates that sodium-ion EV batteries may charge up in seconds, not minutes.

Source: *CleanTechnica* [Read The Article](#)

PSR Analysis: On the face of it, this sounds fantastic but we must remember that in order to charge that fast, we need significant increases in the power available – far more than today's chargers can supply, so some infrastructure changes would be needed.

Ethiopia Demonstrates Fast Transition To Electric Mobility

According to reports and announcements from the Ethiopian government, Ethiopia had a plan to catalyze adoption of electric vehicles in Ethiopia with a 10 year target to see 148,000 electric cars and close to 50,000 electric buses on Ethiopia's roads by 2030. However, Ethiopia has made incredible progress on this path to the extent that the Ministry of Transport and Logistics recently said that this target of over 100,000 electric vehicle has already been met in just the first 2 years of this plan.

Late last year, the Ethiopian govern announced that it was finalizing the process to ban all ICE imports in the extremely near future. Not a plan to phase out new ICE vehicle registration by 2035 or 2040, but an impending immediate ban. Drastic but understandable as Ethiopia spends over US\$ 5 billion annually on petrol and diesel imports, precious foreign currency it does not have, while it does have electricity, thanks to the Grand Ethiopian Renaissance Dam which generates up to 5GW.

Source: *CleanTechnica* [Read The Article](#)

PSR Analysis: With such low levels of motorization in Ethiopia, it is highly likely that going forward a lot of people will have an EV as their first ever car, totally bypassing the ICE Age. Another leapfrog event on the African continent is



upon us, similar to what happened when most people went from not having phones of any kind straight into the mobile phone age, totally bypassing landlines.

Biden Quadruples Tariffs on Chinese EVs, Moving from 25% to 100%

The US government has announced wider tariffs on several categories of Chinese goods, and in particular an increase of tariffs on Chinese EVs from 25% to 100%

Previously, all cars made in China were subject to a 25% tariff when imported to the US, on top of an additional 2.5% tariff that all foreign-made cars were subject to, totaling 27.5%. However, given Chinese EVs are incredibly affordable, Biden has decided that the 25% tariff wouldn't be enough to forestall China's advance, and has decided to instead quadruple it to 100%, meaning that Chinese EVs will effectively sell for double the price they would otherwise if brought to the US.

Source: *Electrek* [Read The Article](#)

PSR Analysis: Tariffs are not a good idea. Protectionist trade measures generally cause more chaos than they're worth, fail to protect the industries they are intended to protect, and lull industry into a false sense of security thus making it less competitive in the long run. If protectionist measures are needed, it's better to encourage domestic industry with incentives than to implement tariffs.

A Final Note

NIO begins public trials of its 150 kWh semi-solid-state battery packs – [Click Here](#)... Scientists are shaking up **Lithium Extraction** with a different kind of chemistry– [Click Here](#)... **Stellantis** is about to test the first-ever production-line lithium-sulfur batteries– [Click Here](#)... **EV Range Anxiety:** It really is all in your mind– [Click Here](#). **PSR**



CONTACT US

Purchasing and Inquiries

Headquarters

St. Paul, USA

+1 651 905 8400

info@powersys.com

Detroit, USA

+1 734 545 0474

infode@powersys.com

Beijing, China

+86 10 5737 9201

infocn@powersys.com

Campinas, Brazil

+55 19 3305 5657

infos@powersys.com

European Headquarters

Brussels, Belgium

+32 2 643 2828

info@powersys.com

Frankfurt, Germany

+49 160 1807 044

info@powersys.com

Pune, India

info@powersys.com

Tokyo, Japan

+81 90 9139 0934

info@powersys.com

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