

Alternative Power Report

July 12, 2024

News on Alternative Power Sources



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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.

EV Sales Are Headed for Long-Term Growth

Short-term picture is mixed, but long-term looks good.

By Guy Youngs, Forecast & Adoption Lead



EV sales will continue to grow despite the mixed near-term outlook, according to BloombergNEF's Long-Term Electric Vehicle Outlook (EVO) which indicates that rapidly falling battery prices, advancements in next-gen battery technology, and improving relative economics of EVs with ICE counterparts continue to underpin long-term EV growth globally.

Global passenger EV sales are expected continue to grow, but at a slower pace in the next few years.

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

PSR Analysis: We have seen articles incorrectly claiming that the EV market is in decline, so it's a welcome article that lays out clearly why the market is expected to slow but not decline while ICE engines peaked in 2017 and have started a long term decline. **PSR**



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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Research Details for Efficient, Environmentally Friendly Lithium

As the electric vehicle market booms, the demand for lithium has also soared, with global lithium production more than tripling in the last decade. Current methods of extracting lithium from rock ores or brines are slow and come with high energy demands and environmental costs. They also require sources of lithium which are incredibly concentrated to begin with and are only found in a few countries.

Researchers at the University of Chicago Pritzker School of Molecular Engineering (PME) have optimized a new method for extracting lithium from more dilute (and widespread) sources of lithium, including seawater, groundwater, and “flowback water” left behind from fracking and offshore oil drilling.

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

PSR Analysis: The key to this process is how well it can be commercialized -if they can succeed in that, then the lithium crisis can be solved (as lower lithium concentrates are much more widely found), but that’s a big “if” at the moment, so we will have to wait and see. **PSR**

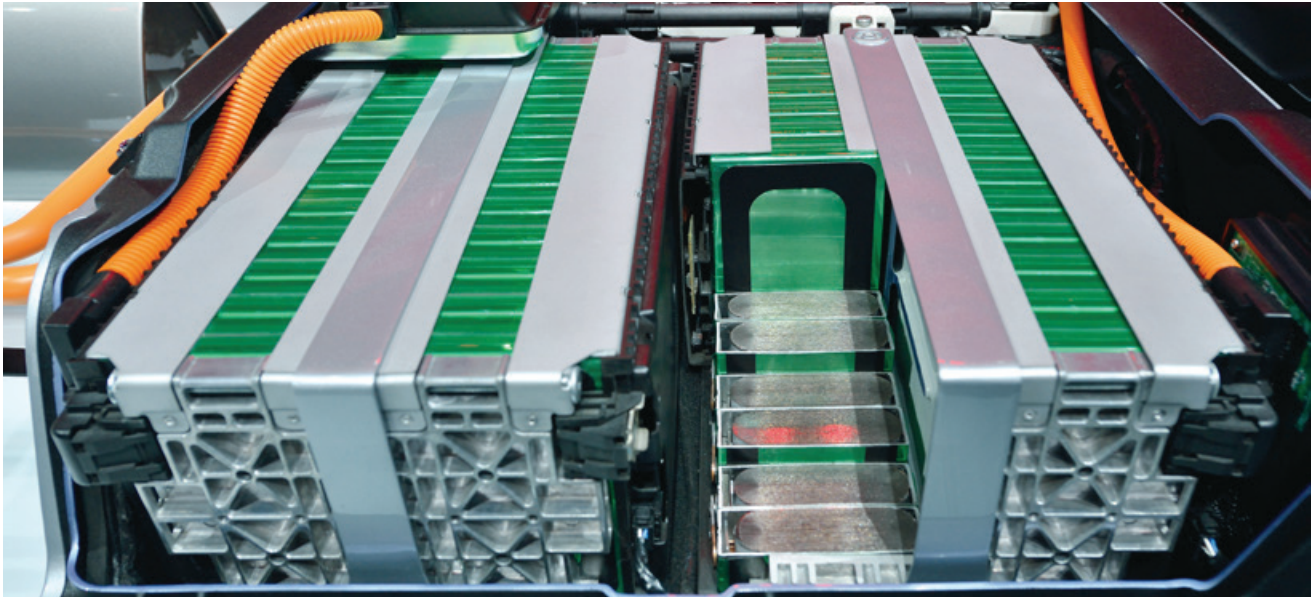
EU Tariffs Hit Chinese EVs, Draw Stern Words from Beijing

The European Commission told automakers (July 11, 2024) it would impose extra duties of up to 38.1% on imported Chinese electric cars starting in July 2024, risking retaliation from Beijing, which called the move protectionist. Less than a month after Washington announced plans to quadruple duties for Chinese EVs to 100%, Brussels said it would set additional tariffs ranging from 17.4% for BYD to 38.1% for SAIC, on top of the standard 10% car duty. It said this was to combat excessive subsidies

it’s worth noting that commercial EV sales are soaring. PSR

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

PSR Analysis: On the face of it, this seems like the start of a trade war with Chinese automakers demanding retaliatory tariffs on European cars, however several EU member states have already started to back track (led by Germany) so it remains to be seen as to what the eventual outcome will be. **PSR**



Canada Considers Tariffs on Chinese EVs Similar To US and EU Moves

The Canadian government is preparing tariffs on Chinese-made EVs to align with the US and European Union, which have already proposed heavy duties to deter “unfair” competition imported from overseas

The country holds strong ties with the US and EU and looks to align with its trade partners in solidarity while blocking a potential loophole China could use to enter North America.

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

PSR Analysis: Canada is still in the early stages of these tariffs, with discussion ongoing. Prime Minister Trudeau has not publicly committed Canada to imposing tariffs on Chinese EVs, stating the cabinet is monitoring the situation closely. **PSR**

This Anode-less, Compression-less Solid-State Battery Could Be the Next Big Thing

ION Storage Systems, based in Maryland, USA, is about to dramatically accelerate the commercialization of its unique solid-state batteries.

As part of a three-year partnership, ION will receive \$20 million from the US Department of Energy’s SCALEUP program which aims to help technologies transition from proof-of-concept prototypes to commercially scalable and deployable products.

ION is also receiving \$20 million in private funds

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

PSR Analysis: Given that solid state batteries are small, safe, light weight, and generate high power, any move to commercialize these units has to be viewed in a positive manner. Image being able to double the range or operating time of a vehicle, while reducing weight and making the vehicle safer. **PSR**

Why Are We Wasting Two-Thirds Of The Energy In Fossil Fuels?

According to the Rocky Mountain Institute, there are five stages that a unit of energy passes through. Initially, it is extracted as primary energy. Then it is processed into final energy that can be used more easily, such as gasoline and electricity, which is transported and sold to end-users. These users convert this final energy into useful energy through devices like boilers and engines, turning the final energy captured in fuels into functional forms such as hot water or a moving vehicle. This useful energy delivers energy services across society, such as heating a home or transporting goods.

The inefficiencies and waste in the system represents 40% of total global spending on energy, or about 5% of global GDP, which is roughly double the annual investments into the energy system every year



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

PSR Analysis: Rocky Mountain Institute believes three new energy transformation changes will have a significant impact on the energy system this decade. These are: Renewables, Localization and Electrification. Imagine what would happen if we could reduce this inefficiency by 25% or even 50%? **PSR**

U.S. Bans on Gasoline-Powered Leaf Blowers Grow, Landscaping Industry Pushes Back

Towns and communities across America are increasingly setting bans or restrictions on gasoline-powered leaf blowers. However, there is push back and some bans are being challenged in court. New Jersey is considering banning the blowers statewide and has advanced a bill that would ban such blowers most of the year but would allow ones using four-stroke combustion engines to be used during peak cleanup periods in spring and fall. (Dirtier two-stroke models would be phased out after two years.)

A ban in California starts next month, and similar measures have passed in Washington, D.C.; Portland, Oregon; Montgomery County, Maryland; Burlington, Vermont; and Evanston, Illinois, among other places

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

PSR Analysis: Increasingly, two stroke engines are being targeted in many different products – whether these products are banned outright or a phased ban is implemented remains to be seen, but in the longer term, two stroke engines may be doomed. **PSR**

Another Day, Another Hydrogen Transportation Firm Plummets To Earth

For some time now we have seen companies in the hydrogen energy area start off very well and show a lot of promise, but bit by bit they seem to fail (often when governmental subsidies end).

A couple of weeks ago, Hyzon collapsed, and now it seems to be the turn of Universal Hydrogen, the aerospace startup that wanted to create Nespresso pods full of hydrogen for aircraft.

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

PSR Analysis: The main problem with hydrogen is the lack of suitable infrastructure, so it's no real surprise that companies like this fail, and they will continue to fail until such time as we get massive levels of investment. **PSR**

A Final Note

New battery chemistry from **Nyobolt** promises faster charging for electric cars – [Click Here...](#) **Liebherr** says its big hydrogen wheel loader beats BEVs – are they right? - [Click Here...](#) **European** people's party challenges combustion engine ban – [Click Here...](#) **Hydrogen trucks** retreat from Australia as battery electric sales surge – [Click Here.](#) **PSR**





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About Power Systems Research

Power Systems Research (PSR), established in 1976, is the leading source of data, analysis and forecasting on the global production of engines and engine-powered equipment, including class 8 vehicles. One of its databases, EnginLink,TM includes production figures down to the model level for OEMs in key market segments, such as commercial vehicles. PSR's global research network includes eight offices and stretches across 200 countries and four continents.



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