

I Like Big Balance Sheets – And I Cannot Lie!



1st Topic of the Week: Are we focusing climate-related stimulus in the wrong places by supporting start-ups that do not have the balance sheet strength to weather volatility? Would public money be better spent derisking large projects for those equipped to handle them? – something that would likely cost much less.

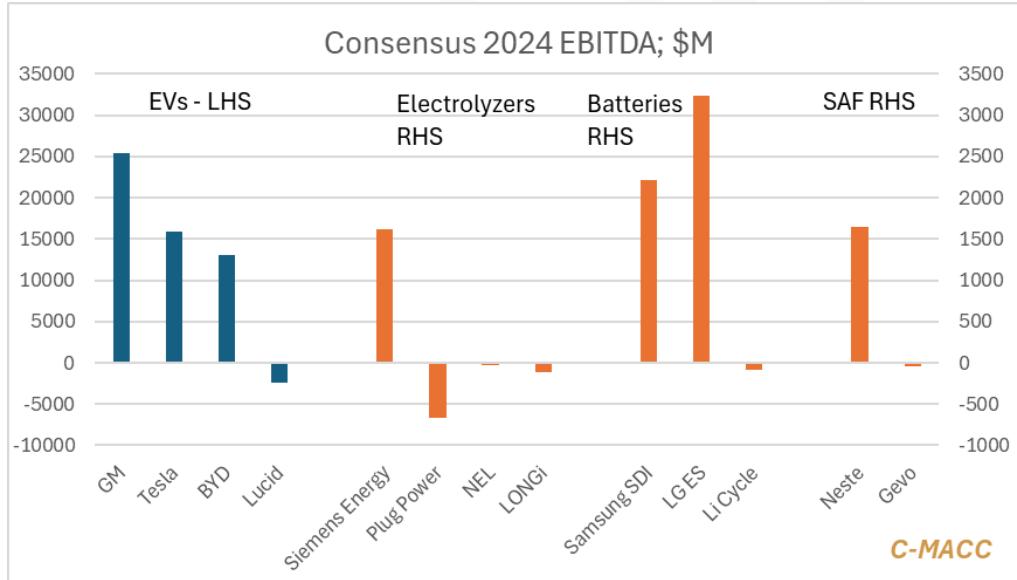
2nd Topic of the Week: Germany – Spending too much



Otherwise: We look at recycling economics and the need for broad collaboration again, we question whether the World can exclude China from transition plans, and whether the China coal model may work in the US.

- Companies Mentioned: Siemens Energy, LONGi, Air Products, ExxonMobil, Woodside, Linde, Dow, Tesla
- Products Mentioned: Electrolyzers, Ammonia, EVs, Nuclear Power, Ethanol, Polypropylene, E-Fuels, Butadiene, Ethylene, Polyethylene, Coal, Hydrogen, CO2
- Subjects Covered: Recycling, Renewables, Carbon Capture, Emissions, New Energy, Hydrogen, ESG Investing, Climate Litigation, Clean Fuels

Exhibit 1: Where would you place your bets – the companies with the deep pockets, or the start-ups?



Source: Capital IQ and C-MACC Analysis

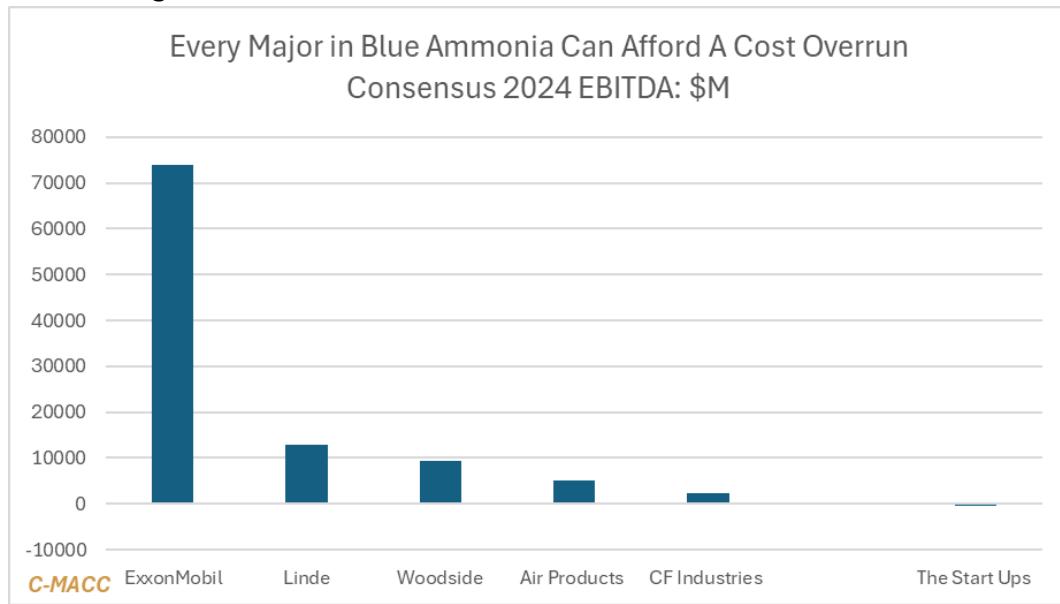
First: Energy transition needs large companies rather than small ones

Several years into this energy transition process and now with plenty of data and the benefit of hindsight, perhaps there might have been a better way, and there may still be an option to change course. Innovation generally comes from entrepreneurs and technology incubators, and the early path in terms of government backed incentives has been to empower the small companies with the big ideas. The loan program office of the DOE for example is there to provide funding for energy transition related projects that might not get funded otherwise because of emergent technology and the limited risk appetite of private capital. But the reality is that few innovators are also good business managers, and few start-up companies can go from small to very large quickly – which is being asked of many in the transition space. We see more companies today across many aspects of energy transition at risk of failure than we see companies at risk of success.

An alternate path would be to encourage those companies that know how to run large manufacturing businesses, and how to build things to take better start-up ideas to commercialization. This is especially true where the companies have large balance sheets and can take some of the financial risk themselves. In the LNG sector in the US, we have recently seen three companies with strong energy reputations and stronger balance sheets buy three floundering projects, all of which now have a new lease of life.

In Exhibit 1, we are only looking for financial heft, we are not judging the quality of the product or how competitively priced it is – for example the Siemens Energy electrolyzer is much more expensive than the LONGi equivalent. The companies with deeper pockets in the large-scale blue ammonia business stand a much greater chance of success than the independents, and we should use Air Products as an interesting example. The company has stated that the project in Louisiana is already a couple of billion dollars over budget – Air Products can afford to take that hit, even if the current activists and others would like to see another path. If any of the independents looking to build in the US were to run that far over budget (which is a likely outcome) they would fail, regardless of the nature of their take or pay contracts or the wrap on the construction. Some additional funding would be needed, and the investors would either say no or set conditions that would likely cause the owner to fail or sell at a loss eventually. The activists in discussion with Air Products may be willing to sell some of the hydrogen assets and take write downs to take the risk off the books. An innovative start-up cannot play in these leagues. The start-ups in the blue ammonia space are all private companies, but we estimate that collectively they have negative EBITDA of around \$500 million per annum today. With the right incentives, ExxonMobil and Woodside could be persuaded to double or triple plans in the US and overall cost to the government would be low, or possibly zero if the incentives were just there to cover unplanned risks.

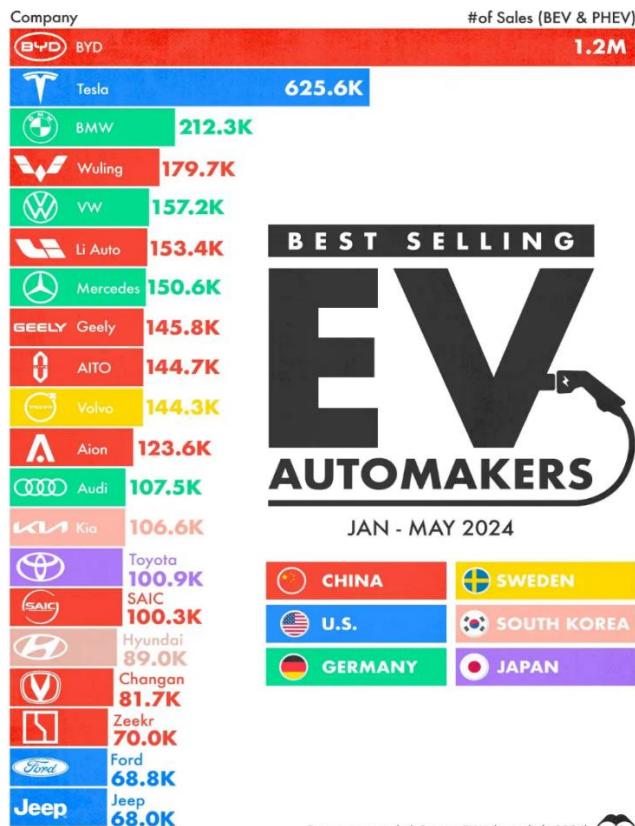
Exhibit 2: Some of those chasing blue ammonia have very deep pockets, but they should still not be expected to invest in something that does not meet financial hurdles.



Source: Capital IQ and C-MACC Analysis

Instead of pointing fingers at the oil and gas industry, perhaps the EU, the US and other countries should have talked about how much they were willing to do to drive lower emissions and called on the oil and gas industry to lead the charge. The oil and gas companies are making unilateral moves in clean energy, some more than others, but they are backing away where the economics don't work. Giving investment backstops to the large companies that know how to produce energy and know how to mass produce equipment might change the risk profile for many and this could not only be a much cheaper way to get things done, but you would also be a more likely path to success. Pick the companies that have an exceptional execution record, for example, Linde, ExxonMobil, and Dow, and give them the right financial backing to take more directed risk to move things forward more quickly. In times of war, you co-opt the best and brightest people and companies to adapt and drive the production that you need. If we are at war with climate, we should think the same way. A start up in clean fuels will take two years to get development funding and another two years, if successful, to get second round funding from the DOE or otherwise – ExxonMobil, with the right incentive (which would likely cost a lot less) could start tomorrow.

Exhibit 3: Why would assume there is room for smaller start-ups in a market with a structure like the one below – there are already too many global players.



Figures are rounded. Source: EV Volumes (July 2024) 

Source: [BYD and Tesla lead the global EV market as sales surge in 2024](#)

Could small nuclear go the way of electrolyzers – again too many players? The recent rise in interest for small nuclear reactors from the AI crew, has given the sector a boost, but we do see some worrying similarities to electrolyzers, in that it may be many years before any of these start-up companies has enough revenue to cover costs and there appear to be too many players, suggesting that we might not see one or two leaders emerge with critical mass. The electrolyzer industry is in trouble because there are too many players, too much capacity and not enough demand. As a result, the industry is finding it increasingly difficult to raise the cash needed to keep operational while demand catches up. Bankruptcies are likely. For the nuclear start-ups the challenge is greater as the lead time before anything gets built and sold is longer and investors will not only need to keep the faith, but they will also likely need to keep funding going through several more years. Like many of the energy transition options today, we need the invention and innovation in many of the smaller companies, but we need the balance sheets of the big companies. It is possible that one or two of the small nuclear companies get picked off by larger energy technology providers, but unless the possible consumers coalesce around one or two providers the market may be too fragmented to spot the more obvious winners – as is the case of electrolyzers.

Backing the wrong horses: While we focus on the need for deep pockets to absorb financial risk above, we question whether the DOE policy of lending just enough money to start-ups to back large projects that they are mostly not qualified to manage will work if cost over-runs cause the companies to run out of money. Companies getting backing from a Biden DOE and then running short of funds may struggle to get extra backing from a Trump DOE, for example. But we also see other moves from the DOE that do not appear to be well thought through. The butadiene from ethanol idea sounds nice, but we are now backing SAF from ethanol, polypropylene from ethanol, and butadiene from ethanol – in addition to ethylene/polyethylene from ethanol. These are huge potential markets and unless we start investing in economic ways to make ethanol from something other than corn, this will end badly if too many of these initiatives are successful. No government is going to support making fuels or materials from ethanol if the shortage they cause materially bid up food pricing. One of our clients told us that they will not buy any materials or fuels that runs the risk of competing with the food industry – food is their primary market.

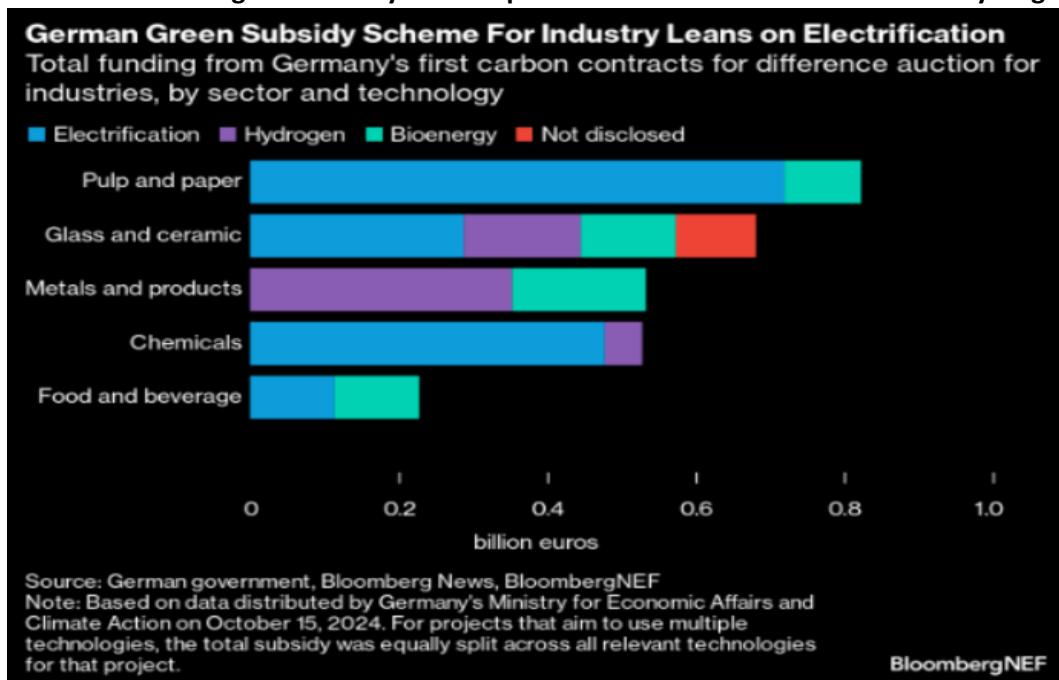
- [Bridgestone gets DOE grant to develop ethanol-to-butadiene process](#)

Second: Germany

Germany: Are spending and political stability mutually exclusive? In several headlines below and in many of our reports we see Germany plowing billions of dollars into establishing a green hydrogen economy, subsidizing power investments and hydrogen investments, many of which are too small to make much of a difference, suggesting that the subsidies will need to keep flowing. The European economy is already weak, and raising taxes or prices, or both, to pay for a very expensive pathway to lower emissions, is something the more radical political parties can challenge – along with their primary target, which is immigration. The more money the EU and its member states throw at uneconomic and overly prescriptive pathways to lower emissions, the greater the opposition target they place on their backs. As an example, one of the more frequent questions we get these days from potential fuel producers in Europe and those looking to export from the US (targeting the SAF market), is where we can find biogenic CO₂ – both volume and cost. The biogenic requirement in the European mandate is a little like the ethanol discussion above, in that we are asking companies to make a lot of material from a limited supply feedstock. If we grow more corn to make more ethanol – providing more biogenic CO₂, and more access to ethanol, have we helped, versus taking the CO₂ from the atmosphere or from a hard to otherwise abate industrial process. The Europeans are charting a course that costs too much and may not achieve the lower carbon outcome they desire.

- [Nel gives pressurised alkaline electrolyzers a second shot with €135m EU boost](#)

Exhibit 4: German green subsidy scheme positions to boost electrification and hydrogen in chemicals.



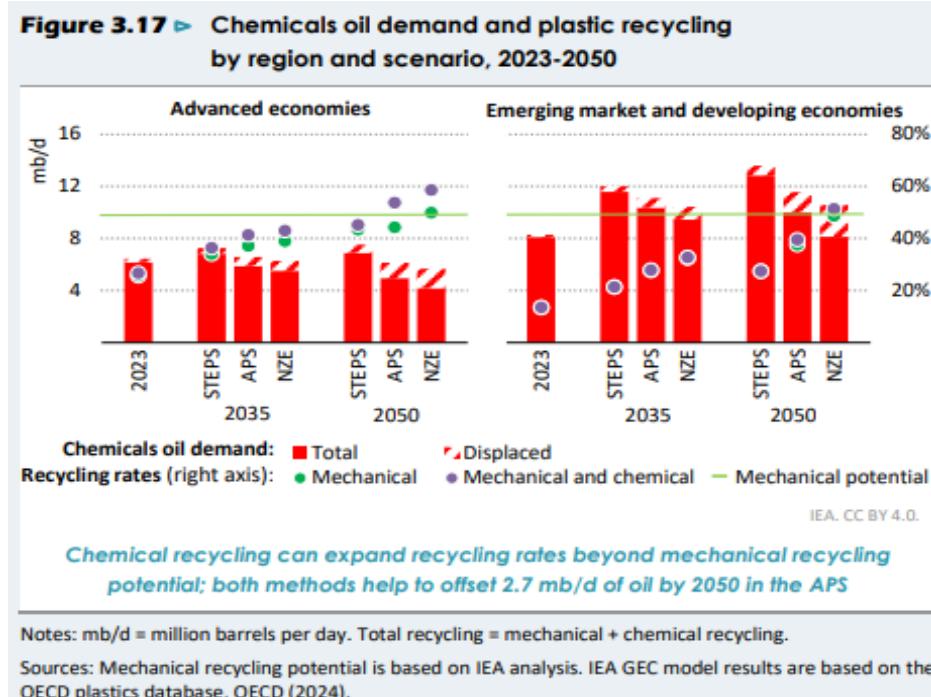
Source: BloombergNEF, October 2024

Recycling and Renewables

A balanced approach to recycling (chemical and mechanical) is likely necessary... In a speech at the 2024 Recycling Expo in London, Martyn Tickner, chief advisor for circular solutions at the Alliance to End Plastic Waste, emphasized the need for collaboration between chemical and mechanical recyclers to achieve circularity in the plastics supply chain. While mechanical recycling remains the preferred method due to its lower carbon footprint and cost, Tickner highlighted the essential role of chemical recycling, particularly in meeting EU plastic waste targets for food packaging. He noted that advanced mechanical recycling could yield higher-quality products and align with upcoming regulations, potentially increasing pricing incentives for recyclers. However, concerns about competitiveness have slowed the adoption of recycled materials as brands opt for cheaper virgin polymers amid a weak economic backdrop. While many are expressing optimism for future circularity in Europe, stressing the importance of establishing industry-wide quality specifications to facilitate the commoditization of recycled materials, which currently face challenges due to price variations and a lack of standardization, challenges remain, and some of these are highlighted in the latest report from the IEA.

...but its production and adoption continue to face challenges... We flag IEA views on chemical and plastics recycling in its [2024 World Energy Outlook](#), highlighting that most recycled waste is processed mechanically. Still, the diversity of plastics limits the growth of this technology. In contrast, chemical recycling is emerging as a complementary solution that could enhance recycling rates, processing approximately 1.3 million tons of plastic waste annually, with projections to reach 6 million tons by 2035 in the APS scenario. By 2050, the NZE scenario anticipates widespread adoption of chemical recycling in advanced economies, potentially recycling 23 million tons of plastic waste and displacing an additional 0.5 million barrels of oil per day beyond mechanical recycling capabilities. The expansion of chemical recycling relies on investments in research and development to improve efficiency and lower costs, which would benefit both advanced and developing economies. However, despite recycling technology advancements, a substantial quantity of virgin plastic will still be required, as recycled plastic is not universally applicable across all industries, especially if its costs (and price) remain significantly higher than virgin plastic. Even in the NZE scenario, oil usage in the chemical sector is expected to remain high, necessitating measures to reduce plastic demand, develop bioplastics, electrify production processes, and implement carbon capture utilization and storage (CCUS) to lower emissions from ongoing plastic production.

Exhibit 5: We highlight chemical oil demand and plastic recycling views from the IEA in its [2024 World Energy Outlook](#)



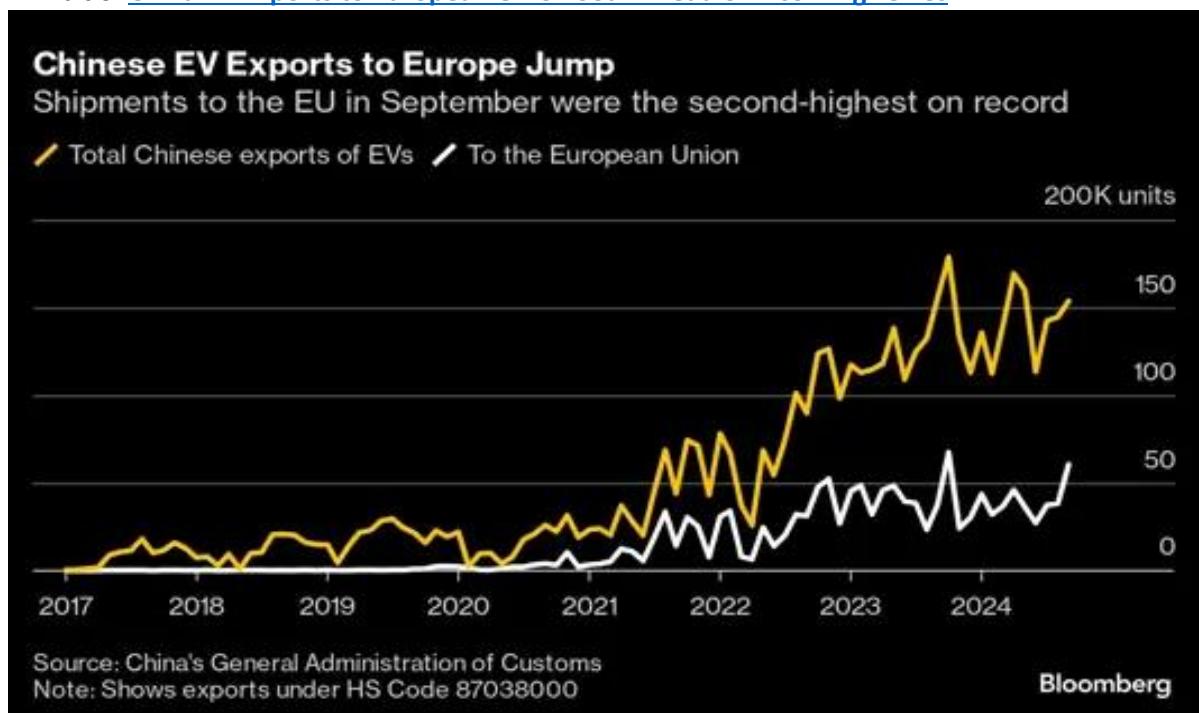
Source: [IEA – World Energy Outlook](#), October 2024

Renewable Fuels, Power, EVs

Shunning China in Energy Transition – Unlikely: One of the theories we have been testing in Europe over the last couple of weeks is what the local stomach is for buying locally versus buying cheap from China. Not surprisingly, there is not that much support for “fortress Europe” among companies focused on not moving further away from the rest of the world competitively, and as the chart below notes, Europeans are buying Chinese EVs, likely because they are the best value for money. In a couple of meetings last week, we discussed Europe’s hydrogen options at length, not the small (and likely loss making) projects we discuss each week in the Hydrogen Report – this week’s report is on transport and is linked [here](#) – but instead more holistic debates on how things get done. Longer term, Europe can only hope to be competitive domestically by buying the best value equipment it can get – today that would be from China for almost all major components. The idea of protecting a local European high-cost supply chain was dismissed quickly. The other hydrogen option that is very top of mind in Europe is North Africa and the Middle East because of the ample and low-cost solar opportunities and the shipping proximity (most likely for ammonia) to Europe. If the EU wants to protect local equipment manufacturing, it cannot rely on loss making altruistic moves from local industry. The options are then to raise tariffs to make the local equipment more attractive, or to rethink the supply chain logic at the expense of local equipment makers. The latter option would be bad for companies like Bosch, Siemens Energy, Topsoe, and others making electrolyzers in

Europe, but it would be good for the hydrogen consuming industries – you likely cannot please both. While we note several new European hydrogen initiatives in today's Hydrogen Report, we are seeing an increasing number of cancellations.

Exhibit 6: [China EV Exports to European Union Soar Ahead of Incoming Levies](#)

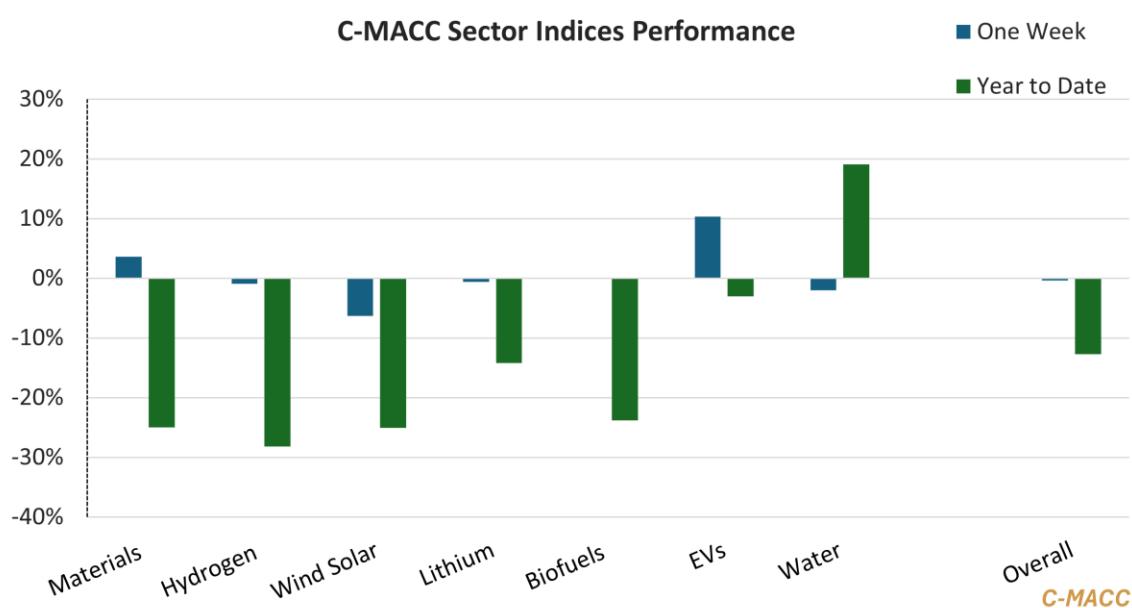


Source: Bloomberg, October 2024

ESG Investing

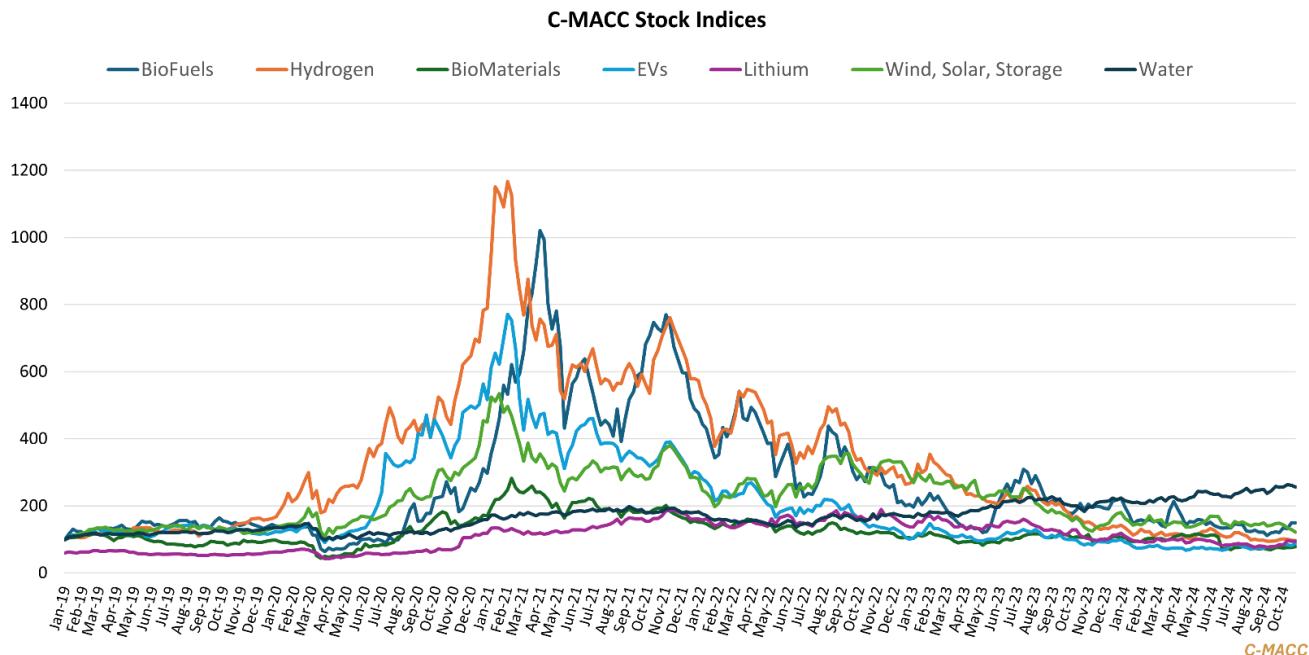
Tesla is the winner this week, after its revised guidance and is carrying the EV group higher. As we note above, the dominance of the large car makers will make it very difficult for the chasing pack to get to positive cash flow as the economies of scale of the majors will drive price reductions, increasing the slope of the uphill battle for the smaller independents. At some point, those pouring money into Lucid and Rivian will get tired of the ash drain.

Exhibit 7: Overall market weakness has not helped over the last few days.



Source: Capital IQ, C-MACC Analysis, October 2024

Exhibit 8: Despite its outperformance, we would remain buyers of the water sector, as we see increasing challenges with freshwater supply, made worse by less predictable weather. Water purification and supply solutions are likely to remain a challenge.



Source: Capital IQ, C-MACC Analysis, October 2024

Other

Helping the miners – what about the China model: Fearful of job losses in the heavy coal mining regions in China and unintended migration – especially from the Northwest of the country, China embarked many years ago on investments in the region in alternate, building huge wind and solar resources, creating many new jobs. The region is now in much better shape as it has some of the lowest cost renewable power in the world and this is driving other investments, including clean coal-based investments. The abundance of power is leading to low costs of hydrogen production, which is helping clean up some of the coal processes, by capturing the CO2 to make fuels. This could be an interesting model for the coal regions of the US, and possibly more likely to save and create jobs than by making small business loans to diverse start-ups, many of which will fail.

- [Biden administration to transition coal miners to clean energy with \\$428m in business grants](#)

Headline Appendix

Recycling and Renewable Materials

- [Aquatech secures 25-year deal for water management at Stegra's green steel plant](#)
- [Aqua Vera selects PET packaging line from Sidel](#)
- [Increased circularity requires collaboration between mechanical, chemical recycling: AEPW](#)
- [Pyrolysis – ReBioCycle, a consortium of 20 partners, has embarked on an ambitious project aimed at advancing the recycling of bioplastics across Europe 18-10-2024](#)
- [SK chemicals unveils new copolyester material with enhanced recyclability](#)
- [Toothpaste tube recycling scheme rolls out in Hong Kong](#)
- [THG expands consumer recycling scheme for cosmetic packaging](#)
- [Toyoda Gosei Increases Rubber Recycling Capacity Towards Decarbonized, Recycling Society](#)
- [Some teams in Summit County work to recycle old building material to avoid filling up landfill](#)
- ['Growth is mandatory' for compounding, recycler Sirmax](#)

- [Japan's Toyoda Gosei to increase rubber recycling capacity](#)
- [LyondellBasell closes acquisition of plastics recycler APK](#)[Mercedes-Benz Launches Battery Recycling Plant Producing New Vehicle-Grade Lithium, Nickel and Cobalt](#)
- [Macroeconomic pressure continues to weigh on Asia recycling sentiment](#)
- [Paper and packaging recycles a cyclical tale of booms and busts](#)
- [Waste collection, chemical recycling and investment in recycling for low carbon solutions](#)
- [Axens begins licensing of polyester recycling process Rewind PET](#)
- [CPChem, LyondellBasell take stake in recycler Alterra](#)
- [Infinity Recycling, LyondellBasell and CPChem invest in Alterra to accelerate the commercial development of advanced recycling](#)
- [Macroeconomic pressure continues to weigh on Asia recycling sentiment](#)
- [Brazil's plastic recycling rate falls for first time](#)
- [Benvic doubling capacity for recycled PVC](#)
- [PAC Worldwide launches 100% recycled content polymailers](#)
- [LyondellBasell closes acquisition of German plastics recycling tech firm APK](#)
- [DS Smith research shows unnecessary plastic usage in UK supermarkets](#)
- [Transcend Packaging and 2M agree on plastic-free coating supply in UK](#)
- [Aldi scraps plastic windows and trays from savoury goods lines](#)
- [Voters Head to the Polls in a World Full of Plastic Pollution. What's at Stake This Year?](#)
- [Axens starts commercialising PET depolymerisation technology](#)
- [Bormioli Pharma and Chiesi partner to introduce Carbon Capture PET bottles](#)
- [Toufayan Bakeries unveils new sustainable pita packaging](#)
- [WRAP urges UK to restrict packaging usage for uncut fruit and vegetables](#)
- [Mitsubishi Chemical launches grades of biomass-based polycarbonate diol](#)
- [WHO calls for clear front-of-package nutrition labels](#)
- [Sinopec affiliate trial produces bio-benzene](#)
- [Arkema launches bio-based ethyl acrylate](#)
- [Metsä Board creates multipurpose packaging for HejBuddy](#)
- [Biomass plays pioneering role for BASF](#)
- [Consortium to Reinvent the Retail Bag renews collaboration with retailers](#)
- [Harpak-ULMA signs distribution agreement with Cabinplant for packaging](#)
- [Stora Enso halts plan to sell Beihai packaging board production site](#)
- [US startup Niron ramps rare earth-free permanent magnet production with pilot plant](#)
- [Syensqo Partners with Jean-Marie Lehn Foundation to Advance Sustainable Materials Research](#)
- [Circular Economy challenges in South and Southeast Asia](#)
- [Circular construction is a huge boon for climate—and jobs](#)
- [Study reveals households binned 5.6 million tonnes of packaging waste in 2023](#)
- [REDYSIGN Project completes first year with progress in sustainable packaging](#)
- [Cleanfarms helps Canadian farmers responsibly dispose of fertilizer containers](#)

Carbon Capture and Emissions

- [Meta Pledges \\$35MM for Carbon Removal Projects](#)
- [US Supreme Court declines to block EPA's carbon capture rule for power plants](#)
- [Malaysia sets 2026 carbon tax, reaffirms decarbonization goals in Budget 2025](#)

- [UK carbon capture a 'costly distraction' from green investments, says IEEFA](#)
- [Why Are Supermajors Investing Billions in U.S. Carbon Capture Projects?](#)
- [Airfix and The Carbon Removers join forces to tackle Europe's carbon emissions](#)
- [Carbon Ridge Closes \\$9.5M Investment to Accelerate Decarbonization of the Maritime Shipping Industry](#)
- [Novelis achieves 27% reduction in carbon emissions in FY24](#)
- [Supermajors Planting Flags in Industrialized Gulf Coast Region to Capture Carbon from Natural Gas, Oil Emissions](#)
- [Bofort powers carbon mineralisation to cut industrial CO2 emissions](#)
- [Ebb Carbon Signs Deal With Microsoft for CO2 Removal](#)
- [Policy, carbon pricing, investment critical to Asia's energy transition: Panelists](#)
- [Japan's Chubu eyes exporting CO2 to Australia for CCS](#)
- [Amcor reports 9% drop in greenhouse gas emissions in 2024](#)
- [INPEX and Chubu target Japan-Australia CCS value chain](#)
- [Wood leads industry project to accelerate CCUS with guidelines for CO2 specifications](#)
- [EU Backs Pioneering CO2 Capture Project at Cemex's Rüdersdorf Cement Plant](#)
- [Novelis achieves 27% reduction in carbon emissions in FY24](#)
- [Morgan Stanley partners with Climeworks for direct air capture](#)
- [Johnson Matthey partners with California-based startup on sorbent manufacturing for direct air capture](#)
- [EU Approves €128 Million Grant to Decarbonize SSAB Steel Production](#)

Renewable Fuels, Power

- [ARCO/Murray to build Boviet Solar's manufacturing facility in US](#)
- [Advent boosts power output and lifetime of G2 e-methanol fuel cell technology](#)
- [BP weighs sale of minority stake in offshore wind business, sources say](#)
- [Hellenic to supply inter-array cables for 2.4GW US offshore wind project](#)
- [Light-speed tech giants 'shocked' by sluggish power sector as US grid creaks under strain](#)
- [Mercedes F1 team makes huge carbon footprint savings with bios](#)
- [Neste's Singapore diesel line shuts over equipment failure, raising global supply disruption concerns](#)
- [Neart na Gaoithe offshore wind farm begins power supply to UK grid](#)
- [SAF success at Norwegian airport](#)
- [Sembcorp secures 150MW wind-solar hybrid project in India](#)
- [TÜV Nord to certify Mingyang's 18MW offshore wind platform](#)
- [Start-up unveils 25kW precious metal-free alkaline electrolyser with 74% efficiency](#)
- [US DOE approves Gevo, Montana Renewables SAF project loans](#)
- [Wärtsilä to deliver 150MW BESS to Amp Energy in Australia](#)
- [EBB gains success in fight against unfair Indonesian biodiesel imports](#)
- [France unveils plans for 9.2GW offshore wind tenders](#)
- [Ørsted submits proposal for 1.4GW US wind project](#)
- [Old wind turbines could be 'tiny houses' of the future](#)
- [Statkraft seeks approval for 2.1GW offshore wind farm in Baltic Sea](#)
- [Statkraft seeks permit for offshore wind farm to power Stockholm with 20MW turbines](#)
- [Singapore OKs planned 1.75GW Australia power imports](#)
- [Terviva receives investment from Chevron to scale pongamia biofuel production](#)
- [Deutsche Bank bullish on GE Vernova but it's a 'tale of two wind businesses'](#)

- [Dominion sells 50% stake in 2.6GW CVOW project to Stonepeak](#)
- [Energy Vault partners Enervest for 1GWh BESS in Australia](#)
- [Ocean Winds in partnership with Brazilian energy firm Eletrobras for offshore wind development](#)
- [Petrobras and Vale extend renewable diesel cooperation](#)
- [US solar manufacturing soars, but gaps and uncertainty persist](#)
- [Equinor says Orsted stake is better value way to own offshore wind than building projects](#)
- [Engie begins construction of 250MW solar farm in Victoria, Australia](#)
- [Eni to sell 25% stake in biofuel unit to KKR](#)
- [ORLEN acquires 300MW renewable energy assets in Poland](#)
- [Shell to acquire 609MW combined-cycle gas turbine power plant in US](#)
- [US to bolster Puerto Rico's hurricane-ravaged power system with solar and storage](#)
- [India's Solar Panel Import Bill Could Hit \\$30 Billion](#)
- [SB Energy's Orion Solar Belt begins commercial operations in US](#)
- [Two Puerto Rico Solar Farms Get \\$861 Million Loan Guarantee from DOE](#)
- [U.S. construction costs rose slightly for solar and wind, dropped for natural gas in 2022](#)
- [Solar hydrogen offers a solution to grid and water bottlenecks](#)
- [Solar was the largest source of new power generating capacity the past 12 months](#)
- [US 2023 solar, wind, geothermal output up 200% from 2014: report](#)
- [Vietnam issues new rules capping surplus solar sales to national grid](#)
- [Solar to dominate new US power additions – but is it a case of overreliance?](#)
- [Philippines clears three projects for first offshore wind auction](#)
- [US Wind pitches massive expansion of Maryland offshore wind projects along with price hike](#)
- [UK to allow onshore wind repowering projects into next green auction](#)
- [ACP Statement on BOEM's Completion of Environmental Reviews for New York Bight Offshore Wind Lease Areas](#)
- [CIP clears Philippines hurdle as Marcos musters offshore wind investors](#)
- [Equinor said to have bid in Japan's latest offshore wind tender](#)
- [How Goldwind seized 'window of opportunity' in quest to conquer Brazil](#)
- [US issues first environmental greenlight for multiple offshore wind arrays in New York Bight](#)
- [CIP takes stake in Stiesdal Offshore as Danish pair bank on bright future for floating wind](#)
- [Trump antipathy 'worrying' for offshore wind says EDPR CEO](#)
- [US Atlantic floating wind setback as Maine Searsport terminal fails to win \\$456m grant](#)
- [Venterra acquires Oceanscan Holdings to boost offshore wind services](#)
- [CEO Strazik 'confident' GE Vernova wind unit to regain profitability in Q4 despite offshore woes](#)
- [Dominion Energy Gets \\$2.6B from Sale of Virginia Offshore Wind Stake](#)
- [Dogger Bank wind delays drag on Equinor green power growth](#)
- [EU nations must find common response to Chinese wind turbines, says Danish minister](#)
- ['Significant market' for offshore wind foundations as deep as 120 metres](#)
- [BP said to explore offshore wind business stake sale](#)
- [Jury Awards Propel Fuels \\$604.9 Million for Trade Secret Misappropriation by Phillips 66](#)
- [Mercedes F1 team makes huge carbon footprint savings with biofuels](#)
- [Neste's Singapore diesel line shuts over equipment failure, raising global supply disruption concerns](#)
- [Southwest Airlines Signs Sustainable Aviation Fuel Purchase Agreement with Valero](#)
- [Universal Fuel Technologies Raises \\$3M to Reduce Sustainable Aviation Fuel Costs by up to 50%](#)

- [Verde Clean Fuels gears up for renewable gasoline era](#)
- [Biomethanol, fuel oil demand up in Rotterdam port 3Q](#)
- [TUI and Repsol Collaborate to Initiate Their Inaugural Biofuel Coach Trial](#)
- [8 Rivers Going Its Own Way on DAC, Zero Carbon Fuels](#)
- [Biomethanol, fuel oil demand up in Rotterdam port 3Q](#)
- [Technip Energies and Enerkem formalize collaboration to advance waste-to-sustainable fuels and circular chemicals technology](#)
- [Mercedes F1 team makes huge carbon footprint savings with biofuels](#)
- [How Europe's battery champion descended into crisis](#)
- [Energy Dome Signs First U.S. Contract with Alliant Energy for Commercial-Scale Deployment of its CO2 Battery](#)
- [Revolutionary Bill Gates-backed CO2 battery hails US breakthrough deal](#)
- [India's Gujarat Fluorochemicals raises \\$119M to expand battery materials business](#)
- [Top US Pacific Northwest utility unveils \\$3bn grid and power line upgrades for renewables ramp](#)
- [VTTI and Connex to develop renewable facility in Amsterdam](#)
- [UK lawmakers talk tariffs and taxes to sweeten green power growth pill](#)
- [ArcelorMittal, ABB partner to use low carbon steel in power distribution system](#)
- [Cuba plunged into crisis by prolonged power blackouts](#)
- [Georgia Power secures \\$160m from US DOE for grid enhancement](#)
- [Neste RD to power data centres' back-up generators](#)
- [Singapore takes new steps to build nuclear capabilities, upgrade power grids](#)
- [Georgia Power secures \\$160m from US DOE for grid enhancement](#)
- [We'll Be Together - To Meet Power-Demand Surge, Data Centers Increasingly Turning to Nuclear Power](#)
- [Ontario lays out plan for additional nuclear, hydro, gas power generation to meet growing demand](#)
- [Sweden's nuclear power review seriously flawed for not looking at demand scenarios: academic](#)
- [Canadian Business Aviation Association joins SAF campaign group](#)
- [DHL, IAG Cargo Sign Deal to Use 60 Million Liters of SAF to Ship Air Freight](#)
- [Wizz Air and Airbus launch SAF trial ahead of EU mandates](#)
- [Constellation orders transformer to revive Three Mile Island nuclear plant](#)
- [Germany draws up action plan to guarantee 'level playing field' for European wind OEMs](#)
- [How US fossil fuel companies could be left holding an unexpectedly large bill](#)
- [Evergy plans two 705MW natural gas plants in Kansas, US](#)
- [Europe's commercial transport is shifting gears on green and digital challenges](#)
- [Southeast Asia's role in the global energy system is set to grow strongly over next decade](#)
- [The UAE's Renewable Energy Giant Plans Massive Global Expansion](#)
- [India's Adani Green sees profits soar amid rising energy demand](#)
- [Viaro and Terrestrial Energy partner on IMSR nuclear project](#)
- [Why Is Smart Money Betting Against Renewable Energy](#)
- [Vanguard Renewables Breaks Ground on its First Organics-to-Renewable Gas Facility in Virginia](#)
- [A Data Center Fight Touches on a Big Question: Who Assumes the Financial Risk for the AI Boom?](#)
- [Biden administration races to shell out billions for clean energy as election nears](#)
- [Braskem and University of British Columbia partnering to accelerate CO-to-methanol technologies](#)
- [Shell to electrify cooling system, cut emissions at Moerdijk steam cracker](#)
- [Nuclear energy stocks hit record highs on surging demand from AI](#)
- [Recent COP host Egypt cuts renewable energy target by a third](#)

- [Scatec reaches financial close for 103MW BESS in South Africa](#)
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