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Monthly Decarbonisation Report

July 2023

iClima Global Decarbonisation Enablers UCITS ETF

CLMA

65bps

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All data as of 30/06/2023

This report was written by, and is the opinion of, the CLMA index providers iClima Earth

Climate Change ETF Key Takeaways

New York engulfed in a haze of wildfire smoke reminds the world that failing to decarbonise will have disastrous consequences, while Tesla demonstrates its leadership emerging as the victorious charging technology – time to call the winners?

The year so far has been marked by US inflation and interest rate developments and concern of a much-anticipated US recession, but it's starting to look like the Fed may be able to pull off a soft landing. In the first half of the month, speculation abounded on the most likely outcome of the Fed's decision on interest rates at its June 14thmeeting. Last month was seen as a "dovish hike" and the unanimous pause confirmed at the latest meeting was a "hawkish skip." In the second half of the year, the Fed is expected to increase interest rates twice as the US economy remains resilient and many economists have revised their probability of the much anticipated recession. Goldman Sachs' chief US economists believes the largest economy on the planet can indeed achieve a soft landing.

While the US is decelerating and the Fed tries to cool down the economy, China is trying the opposite. Shortly after China's biggest state banks cut deposit rates, Chinese Premier Li Qiang was at the World Economic Forum meeting of the new champions on June 27th. He announced that China will take steps to invigorate markets and promote development while accelerating the green transition. In his opening remarks, Premier Li, who had just returned from visits to Germany and France, spoke about not just the speed of economic growth but the quality of it. China accelerating its energy transition will have important, positive consequences to green hydrogen solutions, long duration energy storage, offshore wind, and the electrification of transport.

The magnificent 7 are responsible for strong performance of US indices in the first half of the year. The concentrated rally may spillover to other sectors and green growth in particular may receive investor's attention in the second half of the year. As the month closed, Apple's market cap passed the $3 trillion mark, and together with Nvidia (the strongest share performance YTD), Amazon, Tesla, Meta, Microsoft and Google's Alphabet account for most of the strong equity market returns this year. All these seven stocks closed 2022 with very negative performances, with Tesla being the worst, down 65% last year, followed by Meta down 64%. The fast reverse in investor's sentiment may prompt some investors with great timing to cut positions and reinvest in other areas of the market that are lagging in 2023.

DECARBONIZATION DEVELOPMENTS IN MAY

After Ford announced a partnership with Tesla in May, it was Mary Barra's turn to announce that GM is getting into a similar deal, giving further impetus to Tesla's shares: On June 9th GM announced a similar deal to the one announced by Ford in May. Ford and GM's EV owners will, with an adapter, be able to use Tesla's Supercharging network of over 12,000 locations in the US and Canada. Starting in 2025, Ford and GM's EVs will have Tesla's proprietary plug design (the North American Charging Standard, "NACS"). Tesla made its NACS standards open last November, inviting other charging networks (mostly using the public domain Combined Charging System, "CCS") to adopt NACS. Within a few weeks, Rivian also announced it is adopting NACS. Tesla's fast charging network competes with the other charging players and, as we highlight below, markets reacted negatively to the news of the GM/Ford/Tesla triangular collaboration. Tesla will benefit from additional cash flow from payments for the use of its network, as well as be eligible to receive part of the $7.5

billion in subsidies from the US government to build high speed charging stations along 7,500 miles of key highways.

Shell pivots back to oil: The new CEO, Wael Sawan, pivoted back to oil announcing in June that the company will no longer cut oil production annually until 2030. Shell will invest $40 billion in oil and gas production between 2023 and 2025, while capex for low carbon projects (such as biofuels, hydrogen, EV charging and carbon capture and storage) in the same period will be between $10 and $15 billion. The previous target was an annual 1% to 2% reduction in oil production, which the company's investor relations team claims remains a target and will be achieved prior to 2030 as the company divested from a project in the Permian Basin in Texas. Mr Sawan in June promised investors a 15% increase in dividends and a $5 billion share buyback.

Ember reports that electricity from renewable sources overtook fossil fuel generation in Europe for the entire month in May: For the first full month on record, solar and wind (at 31%, 59 TWh) produced more electricity in Europe than fossil fuel assets (at 27%, 53 TWh). For the first time, solar generation (at 14%) overtook coal-based electricity (at 10%). NatGas-generated electricity represented 15% of all generation in May, the lowest share since 2018. These numbers showcase that Europe is accelerating its energy transition, with fossil fuel generation being replaced by renewable sources at a faster pace.

New York recorded the worst air pollution on the planet yet adaptation and fire prevention solutions are not yet receiving increased investments: Earlier in June, NY recorded the worst air pollution on the planet, as winds from Canada brought wildfire smoke to the city. Flights were halted due to poor visibility, students were kept indoors, and sports events cancelled. Canada is experiencing its worst ever wildfire season, with over 400 active wildfires burning almost 7 million acres. Despite the dramatic event that is an outcome of climate change, specific plans to adapt to a deteriorating environment are not yet in place. Earth monitoring solutions like that of listed company Planet Labs (not part of CLMA) saw its shares tank 18% the same week that NY was suffering from apocalyptic haze; the company reported quarterly results and lowered estimates for annual revenue. Planet Labs has developed a wildfire risk monitoring product using space and AI that it put in place in California in 2019. Technologies and solutions exist, but proper adaptation strategies and funding are lacking.

WILL THE SECOND HALF OF THE YEAR MIRROR THE FIRST, OR WILL WE SEE A BROADER GREEN RALLY?

June was another month of mixed performance for the 166 names in CLMA. Investors have focused inflows into mostly megatech names, but the transformative power of AI is boosting imaginations and encouraging longer term capital to again consider future growth opportunities. Many analysts are talking about AI becoming a $1 trillion addressable market by 2030. Paradoxically, the decarbonization market is already more than $1 trillion but not convincing investors of its merits, as many players are not yet profitable and not deemed to be quality names (yet).

We highlight below the top 15 best and worst stock performances in the comprehensive CLMA in the first half of the year. Over this period, 93 of the 166 constituents had a positive performance. A top performing segment in the year was Electric Vehicle & Transportation, with Tesla (TSLA) up 112%, followed by Li Auto (LI) up 72%, and XPeng (XPEV, strong rally in the last month) up 35%, followed by BYD (1211.HK) up almost 30%. Large cap names, seen as safer investments in this risk off market, are also noticeably strong with names like Schneider Electric (SU.PA a $100 billion market cap) up 27%, ABB (ABBN.SW, $73 billion market cap) up 25%, Applied Materials (AMAT, $121 billion) up 48% YTD, Eaton Corporation (ETN, $80 billion valuation) up 28%, Siemens AG (SIE.DE, $132 billion market cap) up almost 18%.

Analysing the worst performing names, we see that many are direct Inflation Reduction Act (IRA) beneficiaries but green growth names. In the green hydrogen space Bloom Energy (BE) is down 15% YTD, while Plug Power (PLUG) down 16% in the year, FuelCell Energy (FCEL) down 22.3%, while French H2 storage McPhy Energy (MCPHY.PA) down 31.4%. Extremely solid solar related names like Enphase (ENPH) and Alfen (ALFEN.AS) are down in the year but are well positioned to continue to grow strongly internationally. SunPower (SPWR) and Sunrun (RUN), down 25.6% and 45.6% respectively, are names with strong solar + storage behind the meter solutions, supported by the IRA legislation but facing headwinds from higher interest rates in the US and large debt positions. Stem (STEM), down 36%, in contrast to the in-front-of-the-meter Fluence Energy (FLNC, up 55% YTD) was downgraded by analysts questioning the path to profitability. The worst performing stock in the index is Proterra, a leader in electric bus transportation in the US with battery manufacturing capability in North America, also a big IRA beneficiary. A broader green growth rally may translate into strong performance to many of these names now deeply in red.

The 15 best and worst performances in CLMA YTD

1	Ecopro BM. Co., Ltd.	170.36%	Northland Power Inc.	-25.59%
2	Tesla, Incorporated	112.51%	Sunrun Inc.	-25.65%
3	Maxeon Solar Technologies, Ltd.	75.34%	Alfen N.V.	-26.86%
4	Uber Technologies, Inc.	74.57%	Polestar Automotive Holding UK PLC	-28.06%
5	Li Auto Inc.	72.06%	PowerCell Sweden AB	-29.49%
6	SMA Solar Technology AG	67.39%	China High Speed Transmission Equipment	-30.48%
7	Fluence Energy, Inc.	55.34%	RENOVA, Inc.	-31.33%
8	MYR Group Inc.	50.26%	McPhy Energy S.A.	-31.37%
9	Sumitomo Forestry Co., Ltd.	49.29%	Tritium DCFC Limited	-35.12%
10	Applied Materials, Inc.	48.43%	Stem, Inc.	-36.02%
11	EnerSys	46.97%	Enphase Energy, Inc.	-36.79%
12	Pentair plc	43.62%	Bandwidth Inc.	-40.39%
13	Itron, Inc.	42.35%	Blink Charging Co.	-45.40%
14	Veeco Instruments Inc.	38.21%	SunPower Corporation	-45.65%
15	Livent Corporation	38.05%	Proterra Inc.	-68.17%

Source of all data: iClima / Bloomberg as of 30.06.2023. Past performance is not indicative of future performance.

TESLA AND EV CHARGING EVENTFUL MONTH

A fragmented charging network globally, particularly in North America as it lags behind China and EU in EV adoption, compromises charging reliability and therefore holds back EV adoption. The incompatibility of existing technologies (NACS, CHAdeMO, and CCS) increases the difficulty of hardware procurement decisions for charging networks. Tesla's announcements in June expedited the evolution of the technology debate and in one month prompted the many players in the space to commit to the best alternative (i.e., the Tesla one). Charging networks are a crucial infrastructure for EV adoption and despite the negative immediate reaction of investors, the news on technology convergence is a very positive development for this solution.

Tesla (TSLA, up 28% in June, up 112% YTD) One of the "magnificent seven", the EV maker captured the headlines and investors' confidence in the month with the announcements on opening its charging network to Ford and GM. Tesla is also benefiting from the AI momentum, as the company is also a leader in applying AI to the much-anticipated autonomous driving solution. Tesla also managed to beat consensus on the number of EVs delivered in 2Q23, as price cuts in the Chinese and US markets combined with the IRA $7.5k stimulus supported 466,140 EVs to be delivered in the quarter (above the average consensus of 445,000). Quickly adjusting its supply chain has allowed Tesla to make its cheaper Model 3 to fully qualify for the IRA benefit. Therefore, the Model 3 that starts at ca. $40k has a final price of around $25k when taking into account $7.5k of the federal IRA tax credit and another $7.5 from the California tax rebate. That makes Tesla 3 cheaper than the popular Toyota Camry, with a starting price at $26k.

Wallbox NV (WBX, up 10% in June, down -1% YTD) The Spanish EV charging solution provider embraced NACS and saw its shares rally in the month. Investors like clarity on trends and the simplification of the EV charging technology will help accelerate the adoption of electric cars. Wallbox's DCFC solution, the Supernova 180 kW, is set to enter the North American market in the second half of the year.

Blink Charging (BLNK, down 11% in June, down 45% YTD) The Florida company also announced its efforts to embrace NACS. Its new DCFC charger of 240 kW (as opposed to Tesla's own Superchargers that are up to 250 kW) will also be launched soon.

ChargePoint Holdings (CHPT, down 9% in June, down 7.7% YTD) The company was one of the last charging network names to announce its NACS adoption, but it confirmed that it will not only offer NACS on new charging stations but that it will retrofit existing ones starting next year.

Source of all performance data: iClima Earth / Bloomberg. Data as of 30/06/2023. Additional sources available upon request. **Please note that all performance figures are showing net data.** Past performance is not an indicator for future results and should not be the sole factor of consideration when selecting a product.

Climate Change ETF Performance Table

As of 30.06.2023

	1M	3M	6M	YTD	12M	2Y	SI
iClima Global Decarbonisation Enablers UCITS ETF	6.25%	0.40%	8.66%	8.66%	5.43%	-22.96%	-6.27%
CLMA iClima Global Decarbonisation Enablers Index™	*6.31%*	*0.63%*	*9.04%*	*9.04%*	*6.18%*	*-22.16%*	*-5.08%*

Please note that all performance figures are showing net data. Source: Bloomberg / HANetf. Data as of 30/06/2023 Performance before inception is based on back tested data. Back testing is the process of evaluating an investment strategy by applying it to historical data to simulate what the performance of such strategy would have been. Back tested data does not represent actual performance and should not be interpreted as an indication of actual or future performance. Past performance for the index is in USD. Past performance is not an indicator for future results and should not be the sole factor of consideration when selecting a product. Investors should read the prospectus of the Issuer ("Prospectus") before investing and should refer to the section of the Prospectus entitled 'Risk Factors' for further details of risks associated with an investment in this product. When you invest in ETFs and ETCs your capital is at risk.

Product Details

iClima Global Decarbonisation Enablers UCITS ETF (CLMA), is a UCITS compliant Exchange Traded Fund domiciled in Ireland. This is the world's first climate change UCITS ETF that provides exposure to the performance of companies offering products and services that enable CO2e avoidance. CLMA is unique because it shifts the focus from companies' emission reduction actions to companies offering products and services that directly enable CO2e avoidance solutions and shines a spotlight on climate change innovators.

Visit the **CLMA Fund Page** for more information.

Exchange	BBG Code	RIC	ISIN	SEDOL	Currency	TER
London Stock Exchange	CLMA LN	CLMA.L	IE00BNC1F287	BLF0M50	USD	0.65%
London Stock Exchange	CLMP LN	CLMP.L	IE00BNC1F287	BLF0M83	GBP	0.65%
Deutsche Boerse Xetra	ECLM GY	ECLM.DE	IE00BNC1F287	BN93X89	EUR	0.65%
Borsa Italiana	CLMA IM	CLMA.MI	IE00BNC1F287	BN93X78	EUR	0.65%

Gabriela Herculano

CEO and Co-Founder, iClima Earth

Gaby started her career in equity research, covering the Latin American electric utility sector at Lehman Brothers. After business school she moved into the buy side, where she worked on greenfield project finance and M&A at energy developer AES Corporation and as an Executive Director at GE Capital's Energy Financial Services team in London. When structuring private equity infrastructure investments, her primary focus was on renewable energy assets across Europe, having invested into solar and onshore wind, and screened several opportunities also in offshore wind. Gaby combines solid fundamental analysis skills with energy industry knowledge. Her involvement with sustainable development started back in 1992 when she attended the UNFCCC Earth Summit in Rio de Janeiro. Gaby earned her MBA from Wharton in 2002. For further information please visit www.iClima.earth

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