Monthly Solar Energy Market Report

July 2023

HANetf & EQM Indexes
Solar Energy UCITS ETF
TANN
69bps
IE00BMFNWC33
Product Inception Date: 09/06/2021

For Professional Clients Only. Capital at risk.
All data as of 30/06/2023
This report was written by, and is the opinion of the TANN index providers EQM Indexes

Solar ETF Key Takeaways: The Year So Far

Renewable share of German power use climbs to 52.3% in first half. Renewable energy accounted for 52.3% of Germany's power consumption in the first six months of the year, up 3.1 points from a year earlier, on higher solar production and lower overall electricity usage. That was up from a renewable share of 49.2% in the first six months of 2022, according to utility group BDEW and the Centre for Solar Energy and Hydrogen Research (ZSW). Germany wants green power from solar, wind, biomass and hydroelectric generation to account for 80% of its energy mix by 2030, as it abandons nuclear power and aims to cut most of its coal generation and use gas plants mostly for grid back-up.

According to IRENA, the world must add 551GW of solar capacity each year until 2030. The International Renewable Energy Agency (IRENA) has published the first volume of its World Energy Transitions (WETO) outlook and called for the world to add 551GW of solar capacity per year by 2030 to meet the 2050 climate targets. In 2022, the world added 300GW of renewable power capacity. Solar is likely to play a crucial role in any decarbonisation efforts, with the world needing to add 615GW of additional solar capacity each year between 2030 and 2050, well above the current annual capacity addition of 191GW. The world will also have to significantly increase its renewable power investments, from US$486 billion a year today to US$1.3 trillion a year by 2030, and US$1.38 trillion a year by 2050.

IRA benefits could see US solar cut the cost of electricity by 60%. A team of researchers from Dartmouth College and Princeton University in the US have released a report into the potential financial benefits of the Inflation Reduction Act (IRA) on the US renewables sector, with solar projects able to cut the cost of producing electricity by up to 60%. There are also benefits for the solar manufacturing sector. The 45X advanced manufacturing production tax credit will reduce the cost of producing solar panels, with the researchers estimating that solar modules made in the US, and made from components produced in the US, will be 30% less expensive to produce than imported modules.

In a first, wind and solar generated more power than coal in U.S. Wind and solar generated more electricity than coal through May, an E&E News review of federal data shows, marking the first time renewables have outpaced coal over a five-month period. The milestone illustrates the ongoing transformation of the U.S. power sector as the nation races to install cleaner forms of energy to reduce greenhouse gas emissions from fossil fuels. Renewable energy generation exceeded coal-fired power in 2020 and 2022, but only when hydropower was counted as a source of renewable energy, according to figures compiled by the U.S. Energy Information Administration. This year has been different. Wind and solar sources generated a combined 252 terawatt-hours through the first five months of 2023, compared with coal output of 249 TWh, EIA data shows. Hydro generated an additional 117 TWh through May.

Sources available upon request. Please remember that all performance figures are showing net data. Past performance is not indicative of future performance, and when you invest in ETFs your capital is at risk.

Macro Outlook

Global investment in clean energy is on course to rise to $1.7 trillion in 2023, with solar set to eclipse investment oil production for the first time as affordability and security concerns triggered by the global energy crisis strengthen the momentum behind more sustainable options. According to the International Energy Agency, annual clean energy investment is expected to rise by 24% between 2021 and 2023, driven by renewables and electric vehicles, compared with a 15% rise in fossil fuel investment over the same period. But more than 90% of this increase comes from advanced economies and China. This presents a serious risk of new schisms in global energy if clean energy transitions do not increase in the developing world.

Led by solar, low-emissions electricity technologies are expected to account for almost 90% of investment in power generation. Clean energy investments have been supported by a variety of factors in recent years, including global pledges to decarbonize, volatile fossil fuel prices that raised concerns about energy security -- especially following Russia's invasion of Ukraine -- and major policies such as the US Inflation Reduction Act and initiatives in Europe, Japan, China and elsewhere.

However, the biggest shortfalls in clean energy investment are in developing countries. There are some successes, such as investments in solar in India and Poland, and renewables in Brazil and parts of the Middle East. Nonetheless, investment in many countries is being held back by factors including higher interest rates, unclear policy frameworks and market designs, weak grid infrastructure, financially strained utilities, and a high cost of capital. Much more needs to be done by the international community, especially to drive investment in lower-income economies, where the private sector has been reluctant to venture.

Solar ETF Performance

As of 30.06.2023

	1M	3M	6M	YTD	12M	2Y	SI
Solar Energy UCITS ETF	3.80%	-4.24%	0.58%	0.58%	-3.00%	-24.90%	-13.16%
EQM Global Solar Energy Index	*3.86%*	*-4.13%*	*0.90%*	*0.90%*	*-2.16%*	*-23.45%*	*-11.37%*

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

Solar Energy UCITS ETF (TANN) is a UCITS compliant exchange traded fund domiciled in Ireland. The Solar Energy UCITS ETF 'TANN' seeks to offer pure-play exposure to the rapidly growing global solar industry.

The TANN Solar ETF tracks the EQM Global Solar Energy Index (SOLARNTR) which is focused on companies that derive significant revenue from solar energy-related business operations including manufacturing of photovoltaic, solar cells, and systems; producers of solar power generation, equipment, and components; providers of solar power system installation, development, and financing; and/or manufacturing of solar-powered charging and energy storage systems.

TANN is scheduled under Article 8 under the Sustainable Finance Disclosure Regulation (SFDR). Companies will be ESG screened for compliance with UN Global Compact principles plus operational business involvement in the fields of oil sands, fossil fuel, or controversial weapons.

Visit the TANN Fund Page for more information.

Trade TANN

Exchange	BBG Code	RIC	ISIN	Valoren	SEDOL	Currency	TER
London Stock Exchange	TANN LN	TANN.L	IE00BMFNWC33	-	BMTR168	USD	0.69%
London Stock Exchange	TANP LN	TANP.L	IE00BMFNWC33	-	BMTR1D5	GBP	0.69%
Borsa Italiana	TANN IM	TANN.MI	IE00BMFNWC33	-	BL6KDR8	EUR	0.69%
Deutsche Boerse Xetra	TANN GY	TANNG.DE	IE00BMFNWC33	-	BL6KDT0	EUR	0.69%

Stephen Derkash

Mr. Derkash leads EQM's Global and ESG Product initiatives. He has over twenty years of global portfolio management, investment banking and equity research experience, and has worked as a Portfolio Manager at Millennium Management, a $40 billion hedge fund, and at UBS Asset Management. He is the Founder of BlueRunner Global Advisors, a boutique investment advisory firm focused on emerging markets equity investing, and prior to Millennium and UBS, Stephen worked with Nicholas-Applegate Capital Management, in sell-side research with a leading European bank in Brazil, and on the emerging markets investment banking team at Lehman Brothers in New York. He holds an MBA from Wharton, an MA in International Studies from the University of Pennsylvania's Lauder Institute, and a BA from Georgetown University.

Important Information

Communications issued in the UK (ETFs and ETCs)

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Communications issued in the European Economic Area ("EEA") relating to ETFs

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The content in this document is issued by the relevant Issuer.

The Issuers

1. HANetf ICAV, an open-ended Irish collective asset management vehicle issuing under the terms in the Prospectus and relevant Supplement for the ETF approved by the Central Bank of Ireland ("CBI") ("ETF Prospectus") is the issuer of the ETFs. Investors should read the current version of the ETF Prospectus before investing and should refer to the section of the ETF Prospectus entitled 'Risk Factors' for further details of risks associated with an investment in the ETFs. Any decision to invest should be based on the information contained in the ETF Prospectus.
2. HANetf ETC Securities plc, a public limited company incorporated in Ireland, issuing:
    i. the precious metals ETCs under the terms in the base prospectus approved by both the Central Bank of Ireland ("CBI"), the UK Financial Conduct Authority ("FCA") and the final terms of the precious metals (together, "Metals ETC Prospectuses");
    ii. the carbon securities ETCs under the terms in the base prospectus approved by the UK Financial Conduct Authority ("FCA") and the relevant final terms of the carbon securities (together, "FCA Carbon ETC Prospectus"); and
    iii. the carbon securities ETCs under the terms in the base prospectus approved by the Central Bank of Ireland ("CBI") and the final terms of the carbon securities (together, "CBI Carbon ETC Prospectus").

    Investors should read the latest versions of the relevant ETC prospectus before investing and should refer to the section of the relevant ETC prospectus entitled 'Risk Factors' for further details of risks associated with an investment in the ETCs. Any decision to invest should be based on the information contained in the relevant ETC prospectus.

3. ETC Issuance GmbH, a limited liability company incorporated under the laws of the Federal Republic of Germany, issuing under the terms in the Base Prospectus approved by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin") and the final terms ("Cryptocurrency Prospectus") is the issuer of the ETC Group ETCs. Investors should read the latest version of the Cryptocurrency Prospectus before investing and should refer to the section of the Cryptocurrency Prospectus entitled 'Risk Factors' for further details of risks associated with an investment in the ETCs contained in the Cryptocurrency Prospectus. Any decision to invest should be based on the information contained in the Cryptocurrency Prospectus.

The ETF Prospectus, Metals ETC Prospectus, FCA Carbon ETC Prospectus, CBI Carbon ETC Prospectus and Cryptocurrency Prospectus can all be downloaded from www.hanetf.com.
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