US Solar Fund

USF's portfolio is now fully operational and the trust is on track to commence the targeted 5.5 cent dividend in 2021…

Update
10 December 2020

Summary

US Solar Fund (USF) invests in solar power assets across the United States, aiming to generate a progressive dividend of 5.5% of the IPO price now it is fully invested. All 41 assets bought with the IPO proceeds – totalling 443MW – are now operational, meaning USF is in a strong position to be able to deliver this dividend in 2021, covered by cash generated by the portfolio. The dividend is paid quarterly and would represent a yield of 5.2% on the current share price.

USF is managed by solar specialist New Energy Solar Manager (NESM). Although USF was launched in 2019, NESM has been managing solar assets for many years, launching its first fund in Australia in 2015. NESM's strategy involves buying assets which are operational or under construction and bringing them into operation. NESM aims to use its internal asset management team to help generate a total return of at least 7.5% per annum over the life of the assets.

As we discuss in the **Management section**, NESM's experience and connections are important advantages in the US, where tax equity investors typically partner with institutional investors to take advantage of the subsidy regime. The US solar market is c. 6.5x larger than the UK's, and is expected to grow to multiples of its current size (see the **Portfolio section**).

As discussed in the **Dividend section**, a key element of the approach is signing long-term power purchase agreements (PPAs) with investment-grade counterparties. USF's production is 100% contracted for a weighted average of 15 years (as of 30/09/2020), meaning that the income supporting the dividend is extremely stable (although it is in dollars, so UK investors take currency risk).

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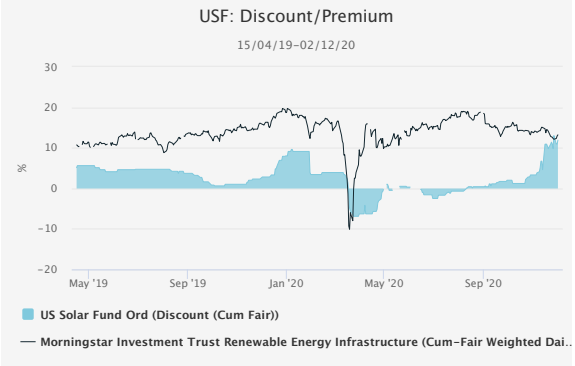
Key Information:

Price ($)	1.06
Premium (Cum Fair) (%)	10.9
OCF (%)	1.48
Yield (%)	1.9
Ticker	USF
Market cap (£)	196,395,857



Kepler View

We think USF's long-term contracted cash flows are an extremely attractive feature. Cash flows are fixed for a weighted average period of 15 years, longer than is typical for the other solar funds in the AIC Renewable Energy Infrastructure sector. This should help ensure the dividend, which would be 5.2% on the current share price, can be maintained and raised in line with USF's target of 1.5% to 2% on average (although for sterling investors there will always be dollar exposure to take into consideration). We note that there is also potential for capital growth given USF uses a significantly higher discount rate than its peers. Some of this, but certainly not all, can be explained by higher interest rates in the US versus the UK. Were USF's discount rate to fall closer towards the peer group average it could lead to substantial gains to NAV.

Investing in the US solar market also seems attractive to us. The US market for solar is already c. 6.5x larger than the UK's, and is forecast to grow extremely rapidly. This means USF should be able to develop a full pipeline of attractive assets rapidly. As the primary driver of renewables in the US is cost rather than climate-related aspects, solar penetration has lagged the UK. However, it is now one of the cheapest energy sources to construct and generates more jobs than fossil fuels. There is therefore a cross-party consensus in favour of expansion.

BULL
High visibility on income due to long-term fixed power price agreements with investment-grade counterparties
Diversification and scale possible thanks to size of US market and pipeline for growth
Expertise of manager affords advantage in doing deals and profiting from all areas of the market

BEAR
Income is paid in dollars, so will vary for sterling investors
The yield is currently lower than the solar fund peers
Higher levels of gearing (target of 100% on a NAV basis) relative to UK peers means NAV sensitive to valuation assumptions

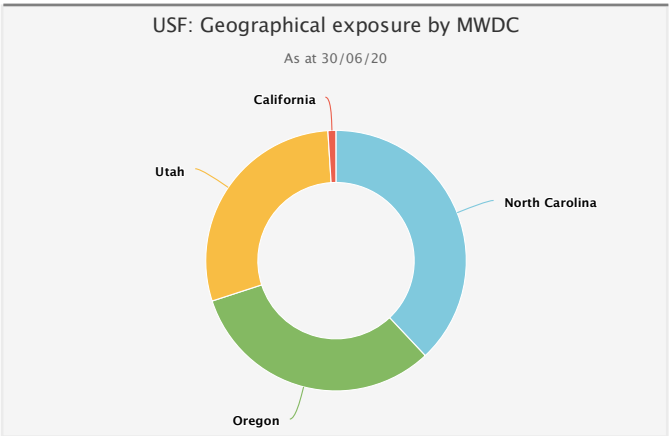
Portfolio

US Solar Fund (USF) invests in solar power plants across the US. Having been launched in April 2019, it has fully committed its IPO proceeds, investing in a portfolio of assets which are now all fully operational, with the final project up and running as of November 2020. This means USF is in a strong position to be able to pay the first quarterly instalment of its full-year targeted dividend of 5.5% of the IPO price (or 5.5 cents) in 2021 and to cover it with cash income. USF also targets an annualised net total return of at least 7.5%, with asset management and valuation uplifts on assets which become operational expected to contribute to the capital growth.

USF recently announced that its final in-construction project, a 128MWDC plant in Utah, reached the commercial operation date (COD) under its PPA of 19 November 2020 on time and under budget. The construction and development cost savings of approximately $4m, combined with proceeds from better-than-expected pre-COD electricity sales of approximately $1m, will generate an approximately $5m uplift to the fund compared to assumptions at acquisition.

USF is managed by New Energy Solar Manager (NESM), a solar power specialist which launched its first fund in Australia in 2015 and which invests in solar assets in the US and Australia. The US offers a much larger and more diverse market than the UK. USF's portfolio of 41 assets is split between North Carolina, Oregon, Utah and a small exposure to California. This means there is a diversity of climate and weather systems affecting the assets at any one time, which the managers believe should help mitigate the risks associated with significant weather events.

Fig.1: Geographical Exposure



Source: NESM

USF's investments are made (and dividends paid) in dollars, so UK investors bear currency risk. However, in dollar terms the income stream should be very secure, as USF enters into long-term power purchase agreements (PPAs) with energy suppliers which fix the price it will receive long into the future. Some of the PPAs are escalating, with fixed annual uplifts. This is a key differentiating characteristic from UK and European focused investment company peers in the AIC Renewable Energy Infrastructure sector. While the trust does benefit from subsidies and does seek to fix the price on the remaining revenues to varying degrees, USF's weighted average PPA length is unusually long (contracts vary from ten to 25 years). The agreements do allow for some curtailment when demand for power is exceptionally low, but offtakers are expected to curtail multiple other sources of power before USF's assets, and typically the energy producers will shut down their own assets first. Proof of this was seen earlier this year: even though demand fell sharply in February and March as the COVID lockdowns hit, there was no curtailment of USF's operational assets.

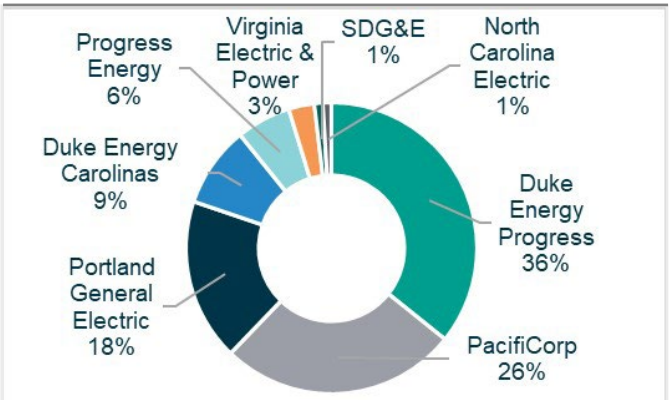
Subsidies on solar power in the US are applied at the time the plant begins operating rather than over a number of years on revenues, as in the UK. Investment tax credits provide a 10% to 30% tax credit based on the total cost of an eligible project. The assets can also be depreciated on an accelerated basis to reduce the tax bill paid in the early years. USF invests alongside tax equity investors, typically banks or insurers. Tax equity investors provide capital in exchange for a majority of income, the tax credits and a predetermined cash yield (typically 1% to 2%). This is a low-cost source of capital for the project.

NESM's experience and relationships in the market provide an advantage because the main risk for the tax equity investors is counterparty risk, so working with experienced, known partners is often preferable. With the scale of the US market likely to increase massively over the coming years, NESM is in a good position to be able to supply further projects to USF's board should it decide to grow the portfolio further. Around 14,000MW of generative capacity is expected to be installed in the US in each of the next five years. For comparison's sake, the Solar Trade Association estimates that in a high-ambition scenario the UK may add just under 800MW a year to 2023. In the longer term, solar is expected to make up around 40% of the US's installed generation capacity by 2050 (according to Bloomberg New Energy Finance's New Energy Outlook 2019 report). Meanwhile, the cost of constructing solar plants is expected to continue to fall, thanks to decreasing costs required to build the photovoltaic modules. In fact, solar energy capacity is already among the cheapest energy sources to construct, notwithstanding any subsidies. This, plus the fact that solar power generates more jobs than fossil fuels, means that there is a cross-party political consensus in favour of supporting it. As much as $89bn is expected to be spent on building new projects in the US over the next five years.

There may be further support for an industry that is already forecast to grow significantly. While we do not yet know what specific initiatives might be taken or the direct impact on the solar industry, President-elect Joe Biden has committed to supporting an ambitious move toward clean energy in the US. Throughout his campaign he spoke about supporting renewables and addressing climate change. Now he has shared a transition statement that speaks specifically about a "carbon pollution-free power sector by 2035" and we expect that, given its cost competitiveness, solar would likely play a big role in this.

USF has exposure to the credit risk of the offtakers, and if an offtaker were to be unable to complete the contract this would mean USF would have to rearrange its PPA with another operator, potentially at a lower cost. Giving some confidence in this regard, USF's offtakers are all investment-grade, experienced utilities, and reasonably diversified by capacity across different purchasers.

Fig.2: USF Portfolio By Offtaker



Source: NESM, based on NAV proportion as at 30 September 2020

USF's assets have a useful life of at least 30 years from commissioning. NESM ensures that the lease on the land is aligned with this useful life, but could potentially seek to extend this if it can ensure the extension of the lease. There is also the potential for asset management improvements, which could also potentially see write-ups of NAV. Historically, NESM has also found there have been valuation uplifts in its Australian fund across US and Australian assets, once assets become operational. Given the potential for further acquisitions to be made of assets under construction, there could be the potential for capital growth in this way too.

NESM reports that having the flexibility to buy both construction and operating assets puts it in a better competitive position than just buying large operating assets which most of the bigger players (pension funds, for example) have to do to deploy enough capital. The large operational end of the market tends to see tighter pricing thanks to the increased demand, NESM reports, so being nimble enough to purchase smaller assets and bring them to operation or conduct asset management activities means NESM's managers can potentially generate superior returns.

Gearing

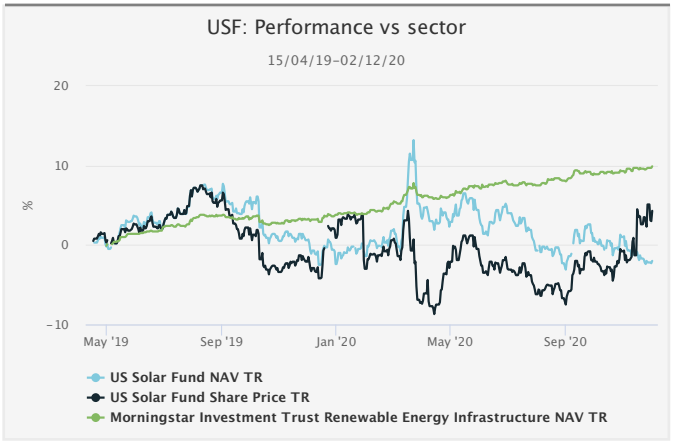
USF takes on gearing at the asset level, with a target when fully invested of 50% of GAV (100% of NAV). This gearing is taken on via wholly owned SPVs. This structure limits the liability if any asset defaults to that SPV, so USF is not liable and the rest of the portfolio can't be taken as collateral. Higher levels of gearing are allowed while assets are in the construction phase – up to 75%. At 30 June 2020 gearing was 62.5%, although this will drop as tax equity bridging loans and construction loans are paid off by the equity partners and assets are revalued to reflect that they are now operating. There is currently no intention to raise amortising corporate debt, although we understand USF may put in place a revolving credit facility as a bridge to any future tap issue of equity.

High levels of gearing mean that movements in the valuation of assets have a magnified effect on NAV compared to UK peers; however, USF benefits from longer PPAs compared to these peers. These longer PPAs and accompanying long-term debt allow USF's managers to lock in prices for their production long into the future while generating an attractive yield. As the debt is held by its subsidiaries, USF does not report on the cost of debt.

Performance

USF has been acquiring and constructing assets since launch in April 2019, so NAV returns are uninformative so far. As per the recent announcement, the portfolio is fully operating, and with USF in a strong position to pay its targeted dividend of 5.5% next year, returns in the future should reflect a mature, operating portfolio.

Fig.3: Performance Since Launch



Source: Morningstar

To date, dividends and operating costs have reduced NAV, while there have been small movements upward in the fair value of the portfolio. Operating assets are externally valued, while assets under construction are carried at cost. This means that acquisitions one, two and five will be valued externally for the first time on 31 December 2020, reflecting the fact that they are now operational.

One of the advantages of fixing the price received for electricity generated via PPAs is that the NAV should also be less affected by changes in market expectations of power prices. However, beyond the limit of the PPA, expected prices do affect valuations. It should also be noted that high levels of gearing magnify the sensitivities of the NAV. The most updated sensitivity analysis below assumes a refinancing of acquisition four which would reduce the overall debt burden. 'Production P10/P90' measures the impact if generation fell to where it is estimated to have a 90% chance of being exceeded, versus where there is only a 10% chance of it being exceeded.

Fig.4: Sensitivity Analysis

Source: NESM

The below table places the comparable sensitivities in the context of the other (largely UK) solar funds, where they give comparable data. The higher sensitivity of USF to the discount rate and the costs we attribute to the higher gearing, but it is notable that despite this gearing the sensitivity to the power price is low relative to the peer group.

Fig.5: Sensitivity Of Solar Funds

Negative				
	NESF (31 March)	FSFL (30 June)	BSIF (30 June)	USF (30 June)
Discount rate (+/- 0.5%)	-3.3	-5.4	-2.4	-5.2
Power price (+/- 10%)	-7.3	-9	-5.1	-6
Energy generation (+/- 5%)	-7.4	-9.6	-8.3	
RPI Inflation (+/- 0.5%)	-4.7	-6.2	-3	
Operating costs (+/- 10%)	-2.2	-3	-1	-4.7
Positive				
	NESF (31 March)	FSFL (30 June)	BSIF (30 June)	
Discount rate (+/- 0.5%)	3.5	5.8	1.6	5.8
Power price (+/- 10%)	7.1	9.5	5	6
Energy generation (+/- 5%)	7.2	9.5	8.2	
RPI Inflation (+/- 0.5%)	5.1	7	3.1	
Operating costs (+/- 10%)	2.1	3	1	4.2

Source: Company announcements

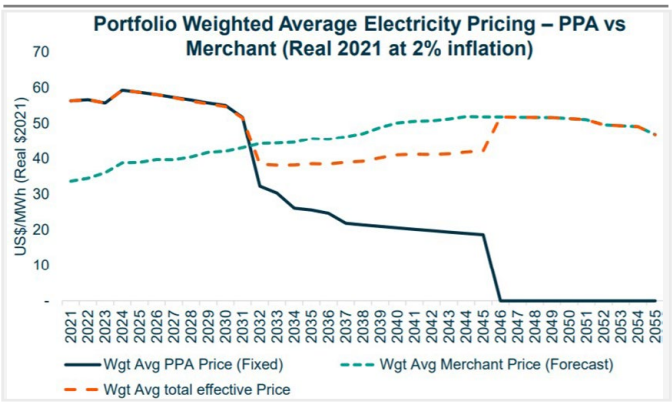
USF uses a discount rate for operating assets that were externally valued at 30 June 2020 of 8.1% to 8.8% on a pre-tax cost-of-equity basis (between 6.8% and 7.2% on a pre-tax weighted average cost-of-capital (WACC) basis). Peers report their discount rate on a cost-of-equity basis, and USF's is considerably higher than theirs. NextEnergy Solar Fund's (NESF's) weighted average discount rate is 6.8%, Foresight Solar Fund Limited's (FSFL's) is also 6.8%, and Bluefield Solar Income Fund's (BSIF's) is 6%. While US interest rates are higher, the gap is only around 0.5% even on a ten-year basis. USF would see a significant uplift in NAV were its discount rate to fall closer to that of its UK peers. In our view, this builds in a certain amount of valuation buffer for USF relative to the peer group, but it is worth remembering that returns for sterling investors will be affected by FX moves.

Dividend

USF is in a strong position to meet its dividend target next year of 5.5% of the IPO price of $1 and cover it by cash income, now that the portfolio is fully operational. Once achieved, this dividend is expected to be increased by 1.5% to 2% a year. In its ramp-up period, USF has been paying a reduced dividend. In 2020 four quarterly payments of 0.5 cents translate to a historical yield of 1.9% on the current share price, or 2% on the IPO price. In Q1 and Q2 2020, contributions have been made from capital, but USF expects to cover the Q3 and Q4 dividends with cash. The target dividend would amount to a yield of 5.2% on the current share price, which, if achieved, would put USF broadly in line with the average yield for the AIC Renewable Energy Infrastructure sector of 5.3%. However, it would be lower than that of the three other solar funds, which pay between 6% and 6.7%.

To some extent this lower yield might be ascribed to the key attraction of USF relative to the UK peer group, which is the security of the income backing this dividend. As discussed in the **Portfolio section**, the income generated

Fig.6: PPA Price Versus Forecast Market Price



Source: NESM

by the trust's portfolio is secured for 15 years on average, with the PPA price either fixed or escalating off a set base price. This means there is no exposure to fluctuations in the merchant power price over this period. The income is also not dependent on subsidies, as solar power in the US is subsidised through a tax credit rather than a revenue subsidy. Of course the counterpoint is that the fixed price does not always adjust upwards with inflation, so over the course of the contracts the real value of the income received will likely decline. However, the weighted average PPA price is well above NESM's forecast inflation-adjusted merchant price until c. 2030, as the below graph shows.

One of the risks to USF's income is curtailment – that demand for power would be so weak that power companies would not take up the power generated by USF's solar plants, and therefore USF's income would fall. However, as highlighted in the **Portfolio section**, even in the initial, severe worldwide lockdowns, this did not happen. Furthermore, the PPAs include conditions which limit when curtailment could see power not taken and paid for. Another risk is that the income is received in dollars and is unhedged, so sterling investors could see fluctuations in the value of their dividends in their home currency.

Management

USF is managed by New Energy Solar Manager (NESM), a subsidiary of Sydney, Australia-based E&P Investments Limited. NESM launched Australian fund New Energy Solar in 2015 in order to invest in solar plants in Australia and the US. USF was launched in April 2019 in order to take advantage of the huge opportunity set in America. The management team is comprised of over 20 professionals based in New York and Sydney, focussing on acquisition, asset management and operations. Through its two vehicles, NESM has invested approximately US$1.3bn in 57 acquired solar projects.

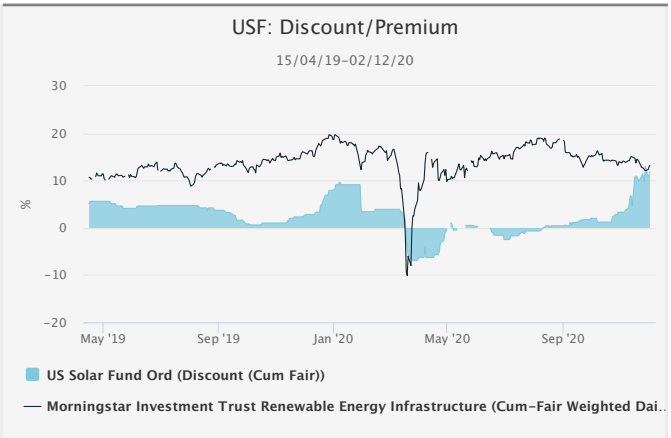
Lead members of NESM's team had extensive experience in the renewables sector prior to joining NESM, which is valuable when it comes to building relationships and striking deals. For example, NESM's chief executive John Martin previously worked at a corporate advisory firm where he advised on more than A$10bn of infrastructure and utility M&A and financing transactions. It is easier and potentially safer for the banks and insurers which fund new developments to work with clients they already know, as their main risk is counterparty risk. As a relatively early operator in the sector, NESM's strong relationships in the industry give it advantages in sourcing acquisitions.

USF's board contains substantial experience across the energy, infrastructure, banking, fund management and corporate advisory sectors. Chair Gillian Nott is also chair of JPMorgan Russian Securities, Premier Global Infrastructure Trust and Gresham House Renewable Energy VCT 1.

Discount

USF now trades on a premium of 10.9%, marginally below the 13.3% average of the AIC Renewable Energy Infrastructure sector. The premium has increased following two recent events. The first, on 6 October 2020, was the sale of a majority of the stake held by the owner of the management company, E&P Investments and the investment manager NESM. This sale may have removed a perceived overhang. Secondly, on 23 November the announcement of the final asset becoming operational was made. Now that the portfolio is up and running and the dividend target is forecast to be met, the shares are trading on a similar premium to their peers.

Fig.7: Discount/Premium



Source: Morningstar

Earlier in 2020, one issue impacting the share price was the announcement of the payment fraud connected to a counterparty, which was discovered in January. The fraudulent payments were made from a USF project company bank account to a third-party US bank account after fraudulent invoices were submitted. The board and the manager launched an immediate investigation, recovered all of the $6.9m, and ascertained that there was no evidence of collusion from within the company. The announcement of the fraud led to the premium narrowing, before the fallout from the pandemic led to a discount opening up (see the graph above). Notably the auditor found no compliance failures, and any recommendations for tightening procedures have been implemented. With all the money recovered and no loss felt by the fund, and with a third-party auditor's report complete, we think investors' confidence is likely to have improved and the shares had moved back to a small premium before the recent news sparked a further uplift.

We would expect that the intention is to continue to grow the fund now that the IPO proceeds are fully invested in operational assets, and this will require share issuance. More than half the shares are owned by institutional investors with more than 3% of the vote each. NESM receives 10% of its management fee (0.1% of NAV at present) in equity. When the shares are trading at a discount to NAV, this discount is applied to the amount of shares received. The shares are subject to a three-year lock-up.

Charges

USF has an ongoing charges figure (OCF) of 1.48% per annum, which compares to the AIC Renewable Energy Infrastructure weighted sector average of c. 1.15%. The board hopes to grow the trust now the IPO proceeds have been invested and all assets are operational. If successful, this would likely see the OCF fall closer to the peer group's average. The majority of the OCF is made up by the management fee, which is charged at 1% on the first $500m of net assets (current NAV is c. $192m). Should the trust grow, 0.9% would be charged on the next $500m and 0.8% above that. Of this management fee, 10% is paid in shares, which aligns the manager's interests with those of other shareholders and gives an incentive to see any discount close. The manager also earns a 0.5% fee on debt it arranges for the fund and on fees for the asset construction services it provides for assets bought in a pre-operational phase. The latest KID RIY was 3.39% as at May 2020, but this includes construction costs of the assets bought, which have subsequently come online and should fall over time.

ESG

Solar power is a major alternative to polluting fossil fuels, which governments are attempting to phase out in order to tackle climate change. As such, we think an investment in the sector is a 'no-brainer' for ESG-conscious investors. As of June 2020, USF's portfolio of solar plants was anticipated to displace over 630,000 tonnes of CO_2 emissions – once all assets are operational. The managers note that this is equivalent to removing more than 137,000 cars from US roads every year. However, NESM goes beyond this in its commitment to ESG. NESM evaluates and reports its strategy's performance against two of the UN's 17 Sustainable Development Goals. These offer specific targets to be achieved by 2030. Beyond contributing to a reduction in carbon emissions, the goals promote having a positive impact on local communities. This social component of ESG has come to prominence in the current pandemic. As well as providing a huge number of jobs in the US (solar accounts for more jobs in the US than oil and gas combined), which is particularly critical at the present time, through its Australian fund NESM is also involved in charitable projects in developing countries such as the SolarBuddy programme, which provides solar-powered lights to children in the developing world to allow them to study. In our view, USF should therefore appeal to an ESG-conscious investor.

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