

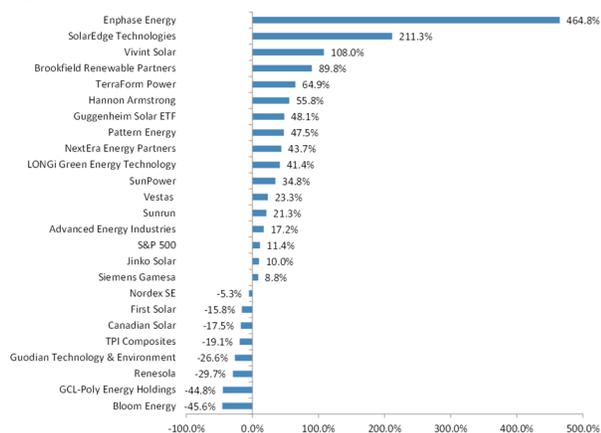
Alt Energy

Alt Energy Stocks Might be Last In but First Out of the COVID-19 Bear Market

As recently as March 9th, wind and solar stocks were outperforming the S&P500 massively on a YTD basis, but the oil shock and COVID-19 caught up with the space, which has since underperformed dramatically in just one week of trading. Last into the bear market, we can see justification for Alt Energy stocks to be first out once COVID-19 peaks because a) supply-chains and production have already largely recovered, b) most utility-scale projects have long lead-times that should buoy demand through a one-quarter recession, and c) falling wind and solar unit costs should continue to buoy medium-to-long-term demand for renewables with or without policy support. Our Top Picks remain First Solar (FSLR), Solar Edge (SEDG), Sunnova (NOVA) and SunRun (RUN), all Overweight Rated (see [Exiting the Print note](#)):

- **What happened to the solar safe haven?** On March 9th, we noted the strong YTD outperformance of the Solar stocks (see [note](#)), since which time the raging bear market has claimed this 'safe haven' as a victim, spurred on by the oil shock that coincided with our note.

Figure 1: From First: YTD Stock Performance as of March 3rd

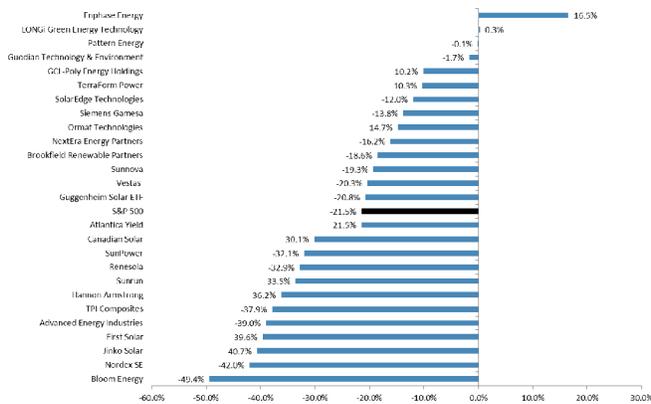


Source: Bloomberg, J.P.Morgan

- **What a difference a week makes.** Whereas on March 9th our Alt Energy coverage stocks were up an average of 25% YTD (S&P down 8%), they have since slumped dramatically and are down an average of 28% YTD (S&P500 down 21.5% at mid-day 03/17) a swing of 53 percentage points in just one week (versus 13.5 pct pts swing in the S&P500). Since analysts haven't even had time to adjust estimates, the sector has clearly re-rated and investors have priced in a precipitous and prolonged slump, evidence for which is thin on the ground, in our view.

Figure 2: To Worst: YTD Stock Performance as of March 17th.

% YTD Return



Source: Bloomberg, J.P.Morgan. Stocks under coverage include: ENPHH, TERP, SEDG, ORA, NOVA, CSIQ, SPWR, RUN, HASI, TPIC, FSLR, BE

- Oil-Shock sell-off is a knee-jerk reaction.** The oil shock as most proximate cause of the sell-off doesn't make a lot of sense to us. Oil is a major input into the transportation and industrials sectors, but accounts for less than 5% of global power sector capacity, only competing head-to-head with wind and solar in some unique locations (e.g. island nations).
- COVID-19 is of course the other cause of the sell-off,** but to-date neither wind nor solar (generally long lead-time activity, not labor intensive, diverse end-markets) have been much impacted in terms of supply or demand, and most CEOs seem cautiously optimistic providing global T&L infrastructure remains operational. We also note that demand for wind and solar growth is largely fueled by falling unit costs that put renewables increasingly in-the-money versus gas and coal in the power sector, so we expect demand to hold up over the longer-term even if policy support is withdrawn as a result of a recessionary environment. That said, wind and solar investment activity will likely inevitably take a hit if COVID-19 spurs a recession. The renewables sector is capital-hungry, so a capital markets hiatus will likely stifle some development activity, and expose over-leveraged developers (a mild re-run of the 2015-2016 SunEdison failure will probably arise in some corner of the downstream renewables space). Social-distancing will likely slow sales and some installation activity in the distributed solar space, where the industry comes into contact with end-customers. Capital rationing could weigh on some C&I investment activity (but not stop current projects we believe), and lower aggregate demand-load in a slow economy could weigh on utilities investment in infrastructure. But the solar and wind industry have so much near-term inertia from long-cycle projects that we think it will be several months before end-market demand slows, at which point we may be in a post-COVID recovery world. Last in first out may be a credible outcome for the Alt Energy stocks, in our view.
- Upstream Solar Recovers from China Production Hiatus** BNEF trimmed 2020 global PV Solar demand by ~8% to 125GW at the mid-point, which implies y/y shipment growth of about 10% but a potential 5% y/y decline at the low-end of the range of expectations (104-143GWs). Though BNEF sees limited impact on the supply-chain or from recently-restored panel operations (in China), analysts anticipate about 10GWs negative demand-impact (relative to prior expectations) from China's decision to push out auction activity and project commissioning deadlines, and for a global GDP slowdown to weigh on demand in other regions of the world. Tier 1 supply seems to have returned to normal, confirmed by Jinko and Canadian Solar, and mono manufacturers are less likely to be impacted by the slow down than multi suppliers, which informs J.P.Morgan analyst, Alan Hon's, positive view on Daqo (DQ/OW); see Alan's [03/16 note](#).
- Utility-Scale Solar is Long-Cycle Business in Remote Locations.** Utility-scale solar, typically deployed in remote locations, has long deployment cycles and is unlikely to be much impacted by COVID-19 from a labor perspective. Jinko (JKS/NR) stated that COVID-19 had no material impact on operations, 400-500MW of panel production slipped from 1Q to 2Q, and the firm reiterated 2020 shipment guidance and capacity expansion plans. Canadian Solar (CSIQ/N) has also seen a quick recovery in operations, and demand conditions vary by region; the company will provide guidance next week.
- DG Solar is Socially Awkward.** Distributed solar is a short-cycle business and both door-to-door sales and installation activity could be negatively impacted by social distancing. That said, both Sunnova and SunRun

([CEO Spotlight Call](#)) are introducing workforce practices to mitigate the impact of COVID-19, and it seems like business as usual for now. Indeed, it's even possible that the virus is feeding homeowner interest in energy resilience and independence; RUN expects to double storage deployments y/y and attach-rates are over 60% in California, and NOVA sees ~100% attach-rates in Hawaii and the overall attach-rate was 24% in 4Q19. There is however a probable slowdown in sales activity ahead (NOVA seems slightly better positioned for this owing to its deal network), and some risk to funding growth if the capital markets are closed for a lengthy period. There's also growing credit risk in the event that the economy slows. We believe the disruption to DG solar deployments will be short-lived, demand should remain robust even in a recession (customers save money) and we remain constructive; NOVA and RUN are both rated Overweight.

- **Wind Spurred on by Year-End Deadlines.** BNEF still expects a record year for the wind industry but sees downside risk to the 75.4GW forecast for 2020, largely owing to the impact of COVID-19 on Chinese suppliers. The rush remains on to beat the PTC deadline in the U.S. and the subsidy deadline in China (reaffirmed on March 10th), so there is no evidence of a demand problem so far. TPIC, the leading independent supplier of blade manufacturing services, sees no impact from COVID on demand though logistics are starting to impact shipping activity at ports. At this time wind deployment activity is only modestly impacted by COVID-19. With a longer term perspective, an economic slowdown and tighter capital markets could weigh on medium-term growth.

IT Hardware, Alternative Energy

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Companies Discussed in This Report (all prices in this report as of market close on 16 March 2020)

Bloom Energy (BE/\$5.31/Overweight), Canadian Solar (CSIQ/\$13.24/Neutral), First Solar, Inc (FSLR/\$31.54/Overweight), Hannon Armstrong (HASI/\$19.71/Overweight), Ormat Technologies (ORA/\$59.76/Neutral), SolarEdge Technologies (SEDG/\$81.19/Overweight), SunPower Corporation (SPWR/\$4.49/Neutral), Sunnova (NOVA/\$9.02/Overweight), Sunrun Inc. (RUN/\$9.49/Overweight), TPI Composites (TPIC/\$11.26/Neutral), TerraForm Power, Inc. (TERP/\$12.01/Neutral)

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