



## US renewable energy companies see improving credit health but outlook remains uncertain

by [Benjamin Lau Chang Xun](#)

As defined by the United States Energy Information Administration (EIA), renewable energy refers to energy from sources that are naturally replenishing but flow-limited; these resources are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. The major types of renewable energy sources are solar, wind, biofuel, hydropower, and geothermal energy. The key characteristic of renewable energy is that it is a carbon-neutral energy source, where nations and organizations looking to reduce their carbon footprint increasingly utilize renewable energy sources instead of the more traditional sources such as coal, petroleum, and natural gas.

In the US, renewable energy has become a particular topic of interest. The EIA announced that solar and wind energy will be the [fastest-growing](#) source of US electricity generation for at least the next 2 years. EIA’s 2019 Short-Term Energy Outlook (STEO) forecasts that electricity generation from utility-scale solar generating photovoltaic units will grow by 10% and 17% in 2019 and 2020 respectively. Wind generation will also grow by 12% and 14% during the next two years. The EIA also [noted](#) that in 2018, renewable energy accounted for 16.9% of domestically produced electricity in the US (compared to 9.3% in 2000) and that electricity generation from renewable energy sources finally [surpassed](#) coal in April 2019, reflecting the long-term increases in renewables and decreases in coal generation.

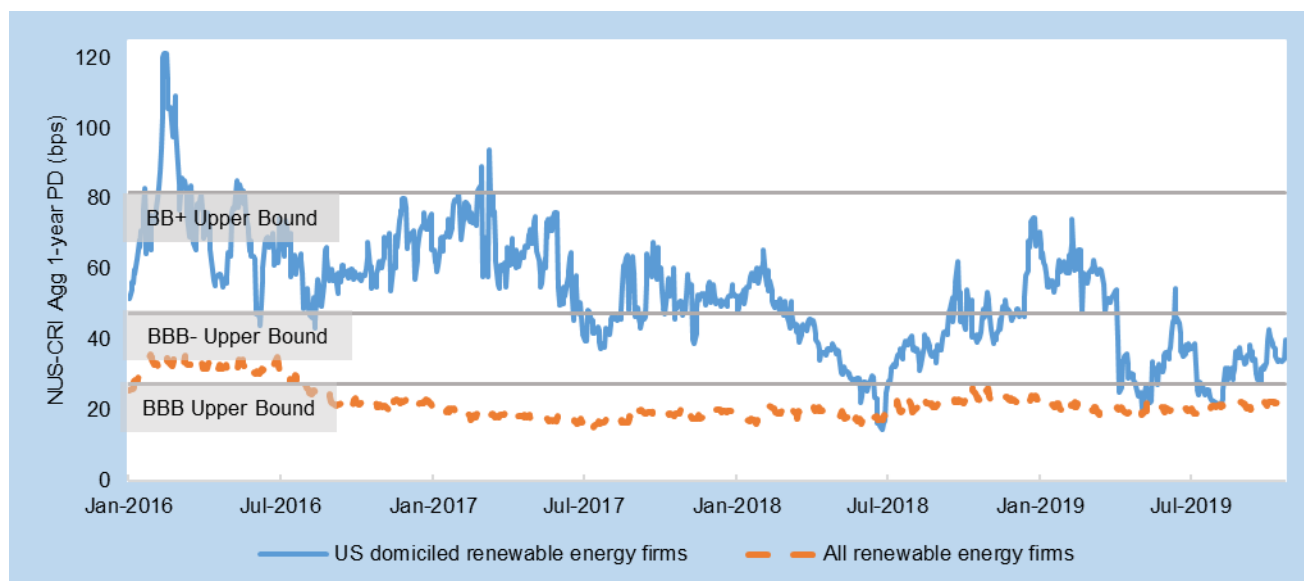


Figure 1: NUS-CRI Aggregate 1-year PD for US-domiciled renewable energy firms and all renewable energy firms from 2016, NUS-CRI PD implied rating boundaries<sup>1</sup>. *Source: NUS-CRI.*

In Figure 1 above, we compare the time series for the NUS-CRI Aggregate (median) 1-year Probability of Default (Agg PD) for publicly listed renewable energy companies in the US with the Agg PD for all publicly listed renewable energy firms globally from Jan 2016 to Oct 2019. We observe that the Agg PD for all renewable

<sup>1</sup> The NUS-CRI Probability of Default Implied Rating (PDiR) provides a more conventional interpretation of PDs – it translates NUS-CRI 1-year PDs to letter ratings by taking reference from the historical observed default rates of S&P’s rating categories.

energy firms to be relatively stable, hovering around the 20-25bps range after a spike in early 2016. On the other hand, we see US renewables firms Agg PD being more volatile, but generally tightening towards the global average.

Recently, the Environmental, Social, and Corporate Governance (ESG) investors are seeing an increase in investor-base, especially so in US, with the Forum for Sustainable and Responsible Investment (USSIF) [stating](#) that sustainable assets have expanded to USD 12tn in 2018, with nearly half of the assets being publicly traded green bonds. The Climate Bonds Initiative (CBI) [reported](#) that about 44% of green bonds' use of proceeds were designated for renewable energy purposes in the first half of 2019, growing from 36% in the same period a year ago. In a [Weekly Credit Brief](#) published earlier this year, we mentioned how ESG investors are becoming more risk-tolerant, benefiting the US renewable energy firms which are seeking to raise debt – resulting in higher issuances. This year, the US renewable energy firms have issued the largest amount of bonds for the past 4 years (see Table 1). Furthermore, the US renewable energy firms' bonds yield-at-issue has decreased this year to 2.48% from 7.25% last year, supporting the assertion that investors' appetite on the US-issued renewable bonds is increasing.

	2016	2017	2018	2019
<b>Amount issued (USD mn)</b>	485	367	297	555

Table 1: Amount of bonds issued by US renewable energy firms. *Source: Bloomberg*

The US holds a number of policy initiatives to spur the growth of the renewable energy sector – the main ones being the production tax credit (PTC) and investment tax credit (ITC) and the renewable portfolio standards. PTC is a corporate tax credit available to a wide range of renewable technologies including wind, biofuels, geothermal, and hydropower firms. The utility receives a 2.2 cents per kWh tax credit for all electricity generated during the first 10 years of the generator's operations. The ITC provides a 30% tax credit for the cost to develop solar and wind energy projects. This credit is now extended until the end of 2019, when it will begin to decrease incrementally until 2022. These credits [reduce](#) the installation costs of generators, which substantially decreases capital expenditures and operating costs of renewable energy firms. The renewable portfolio standard also mandates electric utilities to deliver a certain amount of electricity from renewable energy sources within a certain period of time. With a [mass update](#) to US renewable portfolio standards, where 29 states in the US extended their commitment to renewable energy, a bolstered demand for renewable energy reinforces the optimistic trend for US-domiciled renewable energy firms.

In addition, US renewable energy firms are set to see a decrease in the cost of producing renewable energy. Lazard's annual [Levelized Cost of Energy](#) (LCOE) analysis reports solar photovoltaic and wind costs have dropped an extraordinary 88% and 69% respectively since 2009. Even without accounting for current subsidies, renewable energy costs can be considerably lower than the costs of conventional energy technologies - the low end levelized cost of onshore wind-generated energy is USD 29/MWh, compared to an average illustrative marginal cost of USD 36/MWh for coal. The decrease in cost is mainly driven by research and development, learning by doing, and economies of scale as the US renewables sector is moving out of the early lifecycle of technology, and commercialization will be crucial to the technology's success.

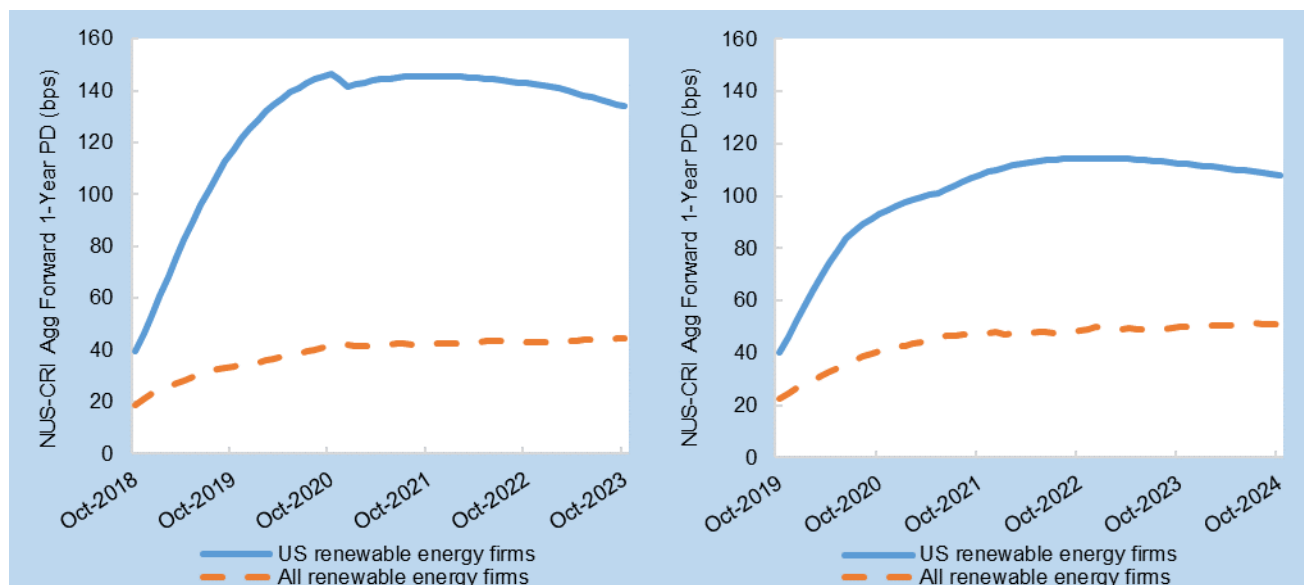


Figure 2a (LHS) & 2b (RHS): NUS-CRI Forward 1-year PD for US renewable energy forms and all renewable energy firms on Oct 2018 (LHS) and Oct 2019 (RHS). Source: NUS-CRI.

Figures 2a and 2b above illustrate the term structure of the NUS-CRI Aggregate (median) Forward 1-year Probability of Default (Forward PD<sup>2</sup>) for US renewable energy firms and all renewable energy firms. As illustrated in Figure 2b, based on market information available as of October 2019, the credit profile for US renewable energy firms could deteriorate in the following 38 months. However, the credit outlook of US renewable energy firms has improved compared to that of last year, as indicated in the smaller gap between US renewable energy firms and all renewable energy firms in Figure 2b than in Figure 2a.

Despite the recent positive developments, US renewable energy firms need to take note of several events that could affect their outlook. Earlier this year, the Trump administration [sought](#) severe cuts to the US Energy Department division in charge of renewable energy and energy efficiency research. The Office of Energy Efficiency and Renewable Energy would see its USD 2.3bn budget slashed by about 70%, to USD 700mn, under the President’s fiscal 2020 budget request. Furthermore, the Wind PTC will be gradually [phased out](#) by 2019, which led to a rush to increase wind installations by 2019 as authorities are not looking to grant extensions to the PTC. Idiosyncratic risks specific to companies also contribute to the negative outlook of US renewable energy companies. Pacific Gas and Electricity Company (PG&E), a company providing electricity to more than 5.2 million Californian households, [entered bankruptcy](#) earlier this year, in order to manage its USD 30bn liabilities resulting from the catastrophic wildfires of Northern California in 2017 and 2018. This phenomenon caused credit ratings for several businesses that supply power to PG&E (some are renewable energy firms) to be cut sharply, potentially causing the cost of capital for the renewable energy industry to be raised. For example, Topaz Solar, which runs a solar photovoltaic plant in central power that sells energy only to PG&E, had its credit rating slashed deep into junk territory.

<sup>2</sup> The Forward PD computes the credit risk of a company in a future period, which can be interpreted similar to a forward interest rate. In Figure 2a, the 6-month forward 1-year PD for a typical US renewable energy firm standing from Oct 2019 means the probability that the firm defaults during the period from Apr 2020 onwards to Apr 2021, conditional on the firm’s survival until Apr 2020.

**Credit News****Sign of stress in leveraged credit are “numerous and multiplying,” warns Bank of America**

**Oct 27.** Numerous signs of tightening credit conditions have been seen in the past few months, ranging from wide market bifurcation, to prevalence of downgrades, to rising distress, to lower availability of capital for the lowest-rated companies. While a lot of cheap money had been raised previously with little-to-no restrictions under the assumption that companies would have access to a lifeline forever, the past 12 months have seen a sharp drop in appetite for this type of debt, indicating a potential spike of long-feared defaults. Red flags have been raised by credit rating agencies, regulators, the IMF and bankers about the dangers of the leveraged lending boom ending badly. ([Market Watch](#))

**China developers’ need to refinance boosts high-yield bonds**

**Oct 25.** Chinese issuance of high-yield dollar bonds has more than doubled in 2019, hitting an all-time high as property developers tap global markets to refinance debt burdens. About two-thirds of global high yield issuance has come from Asia in 2019, driven by the flood of debt from Chinese business. More than 90% of the issuance is from heavily indebted developers. After a flurry of issuance in the first half of 2019, the NDRC has limited developer approvals and granted quotas only to developers aiming to refinance mid-to-long term offshore debt with maturity less than one year. In the near term, developers are unlikely to issue as much as they did due to the quota limit. ([FT](#))

**Japan’s public offerings in free fall as debt reigns supreme**

**Oct 25.** Amid ultralow interest rates, corporations favour bonds as a fundraising scheme to boost ROE. During the first half of the Japanese fiscal year, the value of new shares entering the open market has tumbled 80% from 2018, the lowest since 1992. While Japanese corporates were debt-adverse during the bubble period as stock was regarded as a no-cost fund, more companies now have eschewed stock sales because of the high return expectation of shareholders and the availability of low-cost borrowings. However, experts point out that companies still need to raise funds through stock sales if they are offensive to seek mid-to-long term growth. ([Nikkei Asian Review](#))

**Bankers push back against “greenwashing” criticism**

**Oct 24.** As the total amount of sustainable debt in global markets surpassed USD 1tn this month, so has investor scrutiny. Facing claims that some eco-friendly credentials are little more than marketing, bankers in the booming green bond market have defended issuers against the “greenwashing” accusations, claiming that green bonds can help move companies in a cleaner direction. However, green bonds have been labeled “oxymoronic” when issued by entities contributing to global greenhouse gas emissions. Therefore, standardization and classification of green bonds are needed for the industry. ([FT](#))

**Banks stuck with over USD 2bn of loans as investors cut risk**

**Oct 24.** Risky corporate loans are gradually piling up for some of the world’s largest banks. Lenders including Barclays Plc and Deutsche Bank AG have been left holding over USD 2bn of leveraged loans that they’ve struggled to sell over the past several months. Investors are steering clear from the risky bonds due to the fear of an economic slowdown. Underwriters are facing difficulty in finding buyers and are forced to fund recent buyouts using their own money. Banks might work with private equity sponsors to restructure the financing when stuck with unsold loans. Amid worries over a potential downturn, however, offloading the hung loans could prove challenging for banks over the coming months. ([Bloomberg](#))

**After WeWork, the market is concerned about SoftBank's massive debt load again ([Bloomberg](#))**

**Eurozone yields rise as traders hope for Brexit resolution ([Reuters](#))**

**New normal for India's record borrowing puts heat on bonds ([Bloomberg](#))**

#### **Regulatory updates**

**Gulf's holdout on rates is about to jump on Fed easing bandwagon**

**Oct 28.** Unlike other countries in the Gulf Arab region, Kuwait split from the likes of Saudi Arabia and the United Arab Emirates (UAE), standing pat when US interest rates were lowered in July and September. However, as the Federal Reserve (Fed) is expected to deliver another cut, Kuwait is finally set to follow suit, even as inflation accelerates. Kuwaiti banks have been facing funding costs pressure this year, as well as declines to their net interest margin as its interbank rate is currently about 60 to 70bps higher than those in Saudi Arabia and the UAE. Given that liquidity tightening is temporary, a lower repo rate could ease the cost-of-funding pressure. ([Bloomberg](#))

**Fed to increase repo market interventions again ahead of month-end**

**Oct 24.** The Federal Reserve (Fed) is set to increase the size of its overnight operations for the repurchase market (repo) as it seeks to avoid a repeat of the cash crunch that sent short-term borrowing rates soaring in September. Some market participants are surprised by the increase in the size of the operations as the Fed has largely been able to accommodate banks' demands for its loans on offer recently. To date, the Fed has purchased roughly USD 30bn of short-term Treasury bills and it has also announced that it plans to continue buying another USD 60bn each month between now and the second quarter of next year to keep borrowing costs within its target range. The flood of cash entering the repo market from the Fed has served to dampen concerns of volatility that could occur at the end of the year when banks typically shrink their balance sheets for regulatory calculations. ([FT](#))

**These Asia hold outs are one shock away from quantitative easing ([Bloomberg](#))**

**Turkey cuts rates further to kick-start its sluggish economy ([WSJ](#))**