

RatingsDirect®

Presale:

SolarCity LMC Series V LLC (Series 2016-1)

Primary Credit Analyst:

Alexander Dennis, CFA, Chicago (1) 312-233-7069; alexander.dennis@standardandpoors.com

Secondary Contacts:

Jesse Sable, New York (1) 212-438-6719; jesse.sable@standardandpoors.com

Trevor J D'Olier-Lees, New York (1) 212-438-7985; trevor.dolier-lees@standardandpoors.com

Lead Analytical Manager, U.S. Commercial Credit:

Winston W Chang, New York (1) 212-438-8123; winston.chang@standardandpoors.com

Legal Contact:

Stuart Stahl, New York (212) 438-5627; stuart.stahl@standardandpoors.com

Table Of Contents

\$57.45 Million Solar Lease-And PPA-Backed Notes Series 2016-1

Rationale

Transaction Strengths

Transaction Weaknesses

Mitigating Factors

Business Description: SolarCity

Origination Of Customer Agreements

Credit Underwriting

Industry Characteristics: Distributed Solar Generation Sector Outlook

Table Of Contents (cont.)

Transaction Structure

Governance

Pool Characteristics And Transaction Comparison

Cash Flow Assumptions

Cash Flow Results

Base-Case Scenario

Rating Scenarios

Sensitivity Analysis

Payment Priority

Events Of Default

Early Amortization Period

Sequential Interest Amortization Period

DSCR Sweep Period

Manager Termination Events

DSCR

Legal Matters

Surveillance

Related Criteria And Research

Presale:

SolarCity LMC Series V LLC (Series 2016-1)

\$57.45 Million Solar Lease-And PPA-Backed Notes Series 2016-1

This presale report is based on information as of Feb. 9, 2016. The ratings shown are preliminary. This report does not constitute a recommendation to buy, hold, or sell securities. Subsequent information may result in the assignment of final ratings that differ from the preliminary ratings.

Preliminary Ratings As Of Feb. 9, 2016

Class	Preliminary rating (i)(ii)	Preliminary amount (mil. \$)
Class A	BBB (sf)	52.15
Class B(iii)	BB (sf)	5.30

(i)The ratings on this series are preliminary and subject to change at any time. (ii)The ratings do not address post-ARD additional note interest. (iii)Interest on the class B notes is deferrable if certain triggers are breached. ARD--Anticipated repayment date.

Profile

Expected closing date	February 2016.
Collateral	The trust estate will consist primarily of all rights, title, and interest of the issuer in and to a portfolio of solar PV systems; the master lease documents (including the rights to receive rent and other payments in respect of the PV systems subject to the master lease agreement); solar asset agreements (related to PV systems that are no longer subject to the master lease agreement); amounts on deposit in various transaction accounts; rights from certain insurance policies covering the solar assets; and cash flow associated with the ownership of such assets.
Issuer	SolarCity LMC Series V LLC, an indirect subsidiary of SolarCity Corp.
Originator and servicer	SolarCity Corp.
Performance guarantor and manager	SolarCity Corp.
Transition service provider and indenture trustee	U.S. Bank N.A.
Joint bookrunners and structuring agents	Credit Suisse Securities (USA) LLC. and Goldman, Sachs, & Co.

PV--Photovoltaic.

Rationale

The 'BBB (sf)' and 'BB (sf)' preliminary rating assigned to SolarCity LMC Series V LLC's \$57.45 million solar lease- and power purchase agreement (PPA)-backed notes series 2016-1 reflect our view of:

- The credit enhancement available in the form of overcollateralization and subordination (for the class A notes);
- The manager's operational and management abilities;
- The customer base's initial credit quality underlying the portfolio;
- The projected cash flows supporting the notes; and
- The transaction's structure.

Because this asset class has a limited operating history, we expect the rating on the senior-most class to be constrained to the low investment-grade range for the near future.

Transaction Strengths

The transaction's strengths, in our opinion, include the following:

- The relatively low leverage (approximately 68.2% and 75.2% for the class A and B notes, respectively) of the initial outstanding note balance compared with the aggregate discounted solar asset balance;
- The interest reserve equal to 6.5 months of note interest due during the master lease term and an inverter replacement reserve account, which can be used to cover inverter replacement costs;
- The relatively young age (approximately 16 months, on average) of the solar assets;
- The securitization structure, with U.S. Bank N.A. acting as the transition manager; and
- The performance tests, such as early amortization, sequential interest amortization, and a debt service coverage ratio (DSCR) sweep.

Transaction Weaknesses

In our opinion, the transaction's weaknesses include the following:

- The asset and underlying customer performance histories are limited.
- Potential legislative pressure continues to bring uncertainty to the cost savings associated with solar assets.
- SolarCity Corp. (SolarCity) operates in a highly competitive industry and competes with traditional utilities as well as other solar developers.
- Solar energy production can be unpredictable, resulting in variability in cash flows.
- The variability in costs and expenses associated with managing the portfolio might be hard to predict over time.
- Solar panel quality could vary across different manufacturers.
- Alternative sources of renewable energy could affect the popularity and competitiveness of solar assets.
- The top three states (California, Arizona, and Colorado) account for approximately 84% of the total portfolio.
- Contract start dates are concentrated, with over 95% of contracts started in 2014, which might suggest that inverter replacements and associated expenses could fall into a short time window, creating liquidity stress on the transaction cash flows.
- The potential default of the master lessee may delay or reduce the cash flow available to the transaction.
- If a manager termination event occurs, a possible remedial outcome may be that the transaction gets a new manager that could be different than the maintenance service provider for the master lease.
- Under certain circumstances, the issuer may be responsible for certain tax liabilities and indemnity payments to the master lessee.
- Renegotiating customer agreements before the contract term ends might reduce cash flows to the transaction.

Mitigating Factors

The following factors, in our opinion, partly mitigate the transaction's weaknesses:

- Most customers have high FICO scores, with the weighted average being 750.

- Since 2008, SolarCity has completed more than 6,000 contract reassignments, with the overwhelming majority experiencing full recoveries and only a handful of the installed systems being removed.
- Customers will likely continue to make payments on their solar agreements as long as there is meaningful value proposition and cost savings.
- Recent legislation appears to suggest some balancing of the utilities' and solar developers' needs, including potential transition periods to modified rates for existing solar customers.
- SolarCity differentiates itself by taking an integrated approach through diverse energy-related products and services.
- Under our rating scenarios, we assumed a one-year P90 production volume (the level of annual energy production volume that is expected to be exceeded 90% of the time) with a stressed annual degradation rate for each year of the transaction.
- Photovoltaic (PV) solar panel technology has existed for many years, and viable replacement technology will likely take a long time to develop.
- An independent engineer (IE) assessed the portfolio's solar energy production estimates and overall installed PV system quality.
- The top three states are among the sunniest states in the U.S. with a higher percentage of sunny days per year than other states.
- If a customer agreement was renegotiated to a lower rate, a payment facilitation amount may be assessed per the transaction documents, resulting in an unscheduled note principal payment.
- The systems in the portfolio have completed installation, and the average system has been installed for approximately 16 months.
- Based on our useful life assumptions for inverters and information provided to us by the IE, our cash flow analysis accounted for the tight grouping of contract start dates by applying specific assumptions for inverter replacement timing.
- The transaction includes additional liquidity to address possible timing risks associated with a potential master lessee default.
- The master lessee is responsible for the expenses associated with keeping all the solar systems in good repair and operating condition, and the production guarantee at all times during the master lease term.
- During a manager termination event, the master lessee must still continue making its rent payments to the transaction.
- The tax liabilities and indemnity payments owed to the lessee by the issuer have been guaranteed by SolarCity, and subject to a subordination and nondisturbance agreement, the lessee's rights and remedies against the issuer are subordinate to the notes and other obligations under the securitization documents.
- Under our rating scenarios, timely interest and ultimate principal payments are paid on the class A notes and ultimate principal payments are paid on the class B notes by the legal final maturity (referred to as the rated final maturity per the transaction documents).

Business Description: SolarCity

SolarCity, headquartered in San Mateo, Calif., was incorporated in 2006. As of September 2015, the company had more than 14,000 employees. It has completed installations of solar systems in 27 states, the District of Columbia, and Mexico. The company's customer base is a mix of residential, commercial, and government entities, and it provides or contracts systems or services to more than 300,000 customers.

SolarCity structures the vast majority of its customer agreements as leases, power purchase agreements (PPAs), or, in

the case of residential customers, consumer loans. For the quarter ended Sept. 30, 2015, approximately 98% of new customers chose to enter into leases, PPAs, or consumer loans rather than buying a solar energy system for cash. Lease customers pay a fixed monthly fee with an electricity production guarantee. PPA customers pay a fee based on the amount of electricity the solar energy system produces. SolarCity's consumer loan product, MyPower, offers the benefits of customer-owned systems through a loan provided by SolarCity Finance Co. LLC for the entire purchase price of the solar energy system. These long-term leases, PPAs, and MyPower consumer loan agreements create recurring customer payments, as well as investment tax credits, accelerated tax depreciation, and other incentives.

Origination Of Customer Agreements

In determining whether to enter into a PPA or lease agreement with a potential customer, SolarCity:

- Determines the suitability of a potential customer's rooftop, parking lot, or other designated site for a solar energy system;
- Examines the proposed site's structural integrity;
- Analyzes the potential customer's historical utility bill and energy consumption;
- Evaluates the potential customer's credit quality; and
- Considers any available federal, state, or local incentives.

Credit Underwriting

For residential customers, the current credit underwriting policy requires a FICO score of at least 650, that the FICO scores are valid within 90 days before the related customer agreement is signed, and that at least one person party to each customer agreement or a separate guarantor is approved under the credit underwriting policy.

Industry Characteristics: Distributed Solar Generation Sector Outlook

Standard & Poor's Ratings Services segments the solar industry into three sectors: utility scale, commercial and industrial, and residential. The latter two sectors are referred to as "distributed solar generation" or "rooftop solar."

Residential rooftop solar continues to grow strongly. According to the "Third-Quarter 2015 GTM Research/SEIA U.S. Solar Market Insight®" residential PV grew 69% year-over-year. Share of market is still relatively small, for example California has the largest installed base of rooftop solar and is at about 2% penetration in the three largest utility areas.

We expect distributed solar generation to continue to grow rapidly, albeit from a small base, fueled by:

- Declining PV system installed and related costs, such as customer acquisition and financing and system component costs;
- Policies aiming to increase the use of distributed solar generation.

However, the outlook for sustained, long-term growth is tempered as the new industry faces specific challenges related to possible policy changes (although the recent Investment Tax Credit [ITC] extension in December 2015 boosts growth). For example:

- The distributed solar industry needs to continue to drive down both installed and operating costs to ensure competitiveness with conventional power sources.
- According to Lawrence Berkeley National Laboratory (LBNL)'s Tracking the Sun August 2015 report, state and utility incentives have significantly declined or been phased out in many key markets.
- Ongoing regulatory changes to net metering or retail rate structures, or both, could also occur--possibly spearheaded by recent legislation in the industry's largest market, California--that might reduce the economic allure of PV systems for residential customers.

Decline of PV prices and technological developments

One of the main reasons the U.S. historically hasn't used more renewable energy is that renewable energy technologies were more expensive to build than conventional natural gas or coal plants. Also, the competitive pressure among power producers has intensified because of persistently low gas prices sustained by Shale gas discoveries. The growth of distributed solar generation shows how this particular barrier has been steadily eroded by a sustained rapid fall in PV system-installed pricing.

Through third-quarter 2015, the national average residential PV system-installed price declined to just above \$3.50/watt direct current (DC), with nearly 60% of costs coming from soft costs. Although residential hardware costs fell by more than 14% in the past year, soft costs have actually risen by about 6%. This reflects the challenges in lowering permitting costs and rising expenditures in customer acquisition that have not yet yielded additional installed capacity (source: Third-Quarter 2015 GTM Research/SEIA U.S. Solar Market Insight®).

We believe that installed system costs will further decrease in the near term, benefitting growth in the distributed solar generation industry. Certainly, there is potential headroom as indicated in the LBNL Tracking the Sun August 2015 report, which highlights the fact that median U.S. prices are higher than those found in other key international solar markets, with pricing disparities largely due to differences in soft costs.

As installed costs continue to fall and the number of installations grow, we expect increasing competition in the rooftop solar sector. Increased competition and lower rates could increase pressure to renegotiate rates on existing arrangements.

Recent developments in the industry and at SolarCity

We believe that the industry will continue to innovate and mature, leading to enhanced technology and improved energy efficiencies that could give the industry a boost by reducing cost per watt installed. Developments in PV panel material sourcing, battery technology, or other future breakthroughs could further the industry's development.

We now consider the median life of string inverters to be about 12 years as compared with our previous assumption of 10 years, which we incorporated into our analysis of this transaction as a credit positive. This is supported by an opinion from DNV GL, the IE. based on their assessment of key factors such as:

- Design for reliability;
- Greater use of accelerated life testing for reliability and qualification testing; and
- Field data.

Another credit positive update in our assumptions is the change in degradation stress to 1.2% from 1.3% per year for this particular portfolio. We and DNV GL reached this conclusion given a large majority of the module types to be

used in the LMC V Portfolio are subject to higher standards of quality assurance/quality control (QA/QC) used by SolarCity, including increased use of third-party laboratory testing and factory audits.

Government policies continue to evolve with continued litigation

The other key driver of distributed solar generation growth has been government policies including favorable tax credits, state rebates, and net metering policies. As such, we believe the industry is exposed to regulatory risk because these policies are subject to political shifts.

In our opinion, recent developments that support the continued expansion of solar deployment are:

- ITC's three-year extension, with ramp-down through 2022. Also, additional flexibility added in that a project has to commence construction rather than be placed into service (previous requirement) to qualify for tax credit.
- Paris Agreement on Climate Change; and
- The U.S. government's Clean Power Plan.

The recent ITC extension by Congress and the Senate in December 2015 is considered a major boost to solar deployment. With the solar industry's expectation that penetration of solar assets will be accelerated, now there is certainty around tax equity, which has been a major funding source.

The Paris Agreement on Climate Change was adopted by the U.N. on Dec. 12, 2015. Overall, the outcome was significantly better than many in the market expected, though there remains much to be done to achieve the agreement's objectives.

The cornerstone of the Obama Administration's environmental program is the Clean Power Plan (CPP) rules for reducing power plants' carbon emissions, which was finalized by the U.S. Environmental Protection Agency (EPA) in August 2015. We believe that this plan will broaden the appetite for states to consider solar energy as a solution to meeting the CPP. However, the CPP is facing a high level of scrutiny and judicial challenges.

The solar ITC extension has been recently ratified. The ITC is a tax credit for 30% of a PV system's cost, and this benefit will now apply to systems that start construction before Dec. 31, 2019. Thereafter, the tax credit will decrease to 26% in 2020, 22% in 2021, and 10% thereafter. Starting in 2022, homeowners will get no tax benefit.

The prevalent business model of PV developers is capital-intensive. Almost all PV developers attract consumers by bearing the upfront development costs, which are typically financed by debt, equity, state rebates, and the ITC (at 30%, generally a significant portion of the financing). Typically, developers must partner with tax equity investors to finance themselves because they do not have sufficient taxable income to benefit directly from the ITC.

Net metering has caused tension between the PV developer industry and the utilities. From the consumers' perspective, the current net metering regime creates an economic incentive to install a PV system. This is more so for residential customers than for commercial entities because of their different consumption profiles. Under net metering billing, customers receive credits on their bills for any generation that is sent back to the utility's grid (typically when the residential customer is not using electricity). The credit on the bill is usually applied at a retail rate (i.e., what the customer would have paid for that generation had it been transmitted from the utility's grid). Given that the average residential consumer uses more electricity in the evening when the PV system generation is zero to low and the

majority of the day's generation would be exported to the grid at the retail rate, this credit generally reduces the consumer's monthly bill.

The largest residential PV market, California, adopted legislation (AB 327) on Oct. 7, 2013, that created a timeline for the California Public Utilities Commission (CPUC) to reformulate the net energy metering (NEM) rates specific to PV consumers by end of 2015. In March 2014, CPUC decided (D. 04-03-041) to establish a 20-year transition period, beginning the year the system was interconnected, during which the systems already enrolled in NEM tariffs on the earlier of July 1, 2017, or the date when the utility achieves its statutorily required 5% NEM cap, may continue to operate under the NEM. Through March 2014, the CPUC reported that San Diego Gas & Electric (SDG&E), at 2.23%, made the most progress towards the 5% cap.

Although we expect grandfathering provisions to protect existing PV customers to a certain extent, we continue to monitor details of changes to NEM rates as they become available in California and other states.

There are mounting arguments from utilities that residential customers should receive rates for energy sold back to the grid that are closer to their avoided costs. The credit risk is that the value proposition to homeowners will be likely eroded if rates fall to avoided costs (there is also a range of views on reasonable transmission and distribution charges). Given this transaction's duration, this is a potential issue, even for those states with grandfathering arrangements.

Transaction Structure

The issuer is a special-purpose, bankruptcy-remote, Delaware limited-liability company. It is a wholly owned, direct subsidiary of the depositor, AU Solar 2 LLC, and a wholly owned, indirect subsidiary of SolarCity. On the closing date, pursuant to a sale and contribution agreement, the issuer will acquire from the depositor all right, title, and interest of the depositor in the PV systems and the master lease documents and any other interest of the depositor in the solar assets. Pursuant to the indenture, the issuer will pledge the trust estate to the indenture trustee for the noteholders' benefit to secure the notes

The master lease

In 2014, the original lessor entered into a lease transaction with the lessee for the solar assets. Under the master lease agreement (MLA), the original lessor agreed to lease the PV systems to the lessee and to assign the related solar asset agreements to the lessee for the lease term. The lessee agreed to pay rent, termination value payments, and other amounts for the PV systems to the original lessor.

Upon an event of loss with respect to a PV system, a default by the customer that results in the related customer agreement's termination, or a customer exercises its option to purchase a PV system, the lessee has the right to terminate the MLA for that PV system by paying its termination value payment. Upon such termination, the related customer agreement will automatically revert back to the lessor.

Per the MLA, the lessee is obligated, at its own cost and expenses, to keep all PV systems in good repair and good operating condition; properly service all components of all PV systems; enter into and keep in full force and effect during the lease term an operation, maintenance, and administration agreement; and replace any part of and make

modifications and alterations to the PV systems to comply with applicable laws. The lessee must also, at its own cost and expenses, maintain insurance and pay all sales, use, and property taxes on the solar assets under the master lease. As such, the lessee has entered into a maintenance-services agreement with SolarCity as the maintenance service provider.

Upon a lessee default under the MLA, the lessor may exercise various remedies under the master lease and lessee security agreement, including terminating the MLA and taking title to the solar asset agreements.

Under a limited guaranty, the lessee guarantor assures the prompt and complete payment when due of the obligations of the lessee to pay rent, subject to certain limitations. Our analysis does not account for this guarantee, as it does not fully meet our guarantee criteria. (Please see "Guarantee Criteria--Structured Finance," published May 7, 2013.)

According to a subordination and non-disturbance agreement by and among the issuer, the lessee, and the indenture trustee, the lessee agrees that any payments or obligations owing to or required to be performed by the issuer to the lessee under the MLA and any rights and remedies of the lessee in respect of the issuer under the MLA shall be subordinate to the payments by and obligations of the issuer under the indenture and other transaction documents. The indenture trustee acknowledges that the MLA is subject to the lessee's rights and that, if any action or exercise of any remedy by the indenture trustee occurs, so long as no lessee default has occurred and is continuing, that action or exercise of any remedy shall not affect, terminate, or disturb the lessee's right to quiet enjoyment of each PV system.

Governance

The transaction includes a transition manager who, upon a manager termination event, will analyze the impact and recommend whether to terminate the manager, coordinate information flow among potential replacement managers, review potential candidates for a replacement manager, recommend a replacement manager if necessary, negotiate the replacement management agreement's terms (with the approval by the majority noteholders of the controlling class), and assist in the replacement manager's transition. The transition manager may, at its sole option, perform the billing and collection of customer payments and performance-based incentive (PBI) payments until a replacement manager is appointed. Further, the transition manager will be responsible for reviewing, consenting to, or denying any request by the lessee under the MLA to terminate the maintenance services provider, which at the time of closing is SolarCity.

Pool Characteristics And Transaction Comparison

The pool characteristics for the SolarCity LMC Series V LLC are as of the Oct. 31, 2015, statistical cutoff date (see table 1). We have also included several recent transactions in the solar securitization sector that we have rated for comparison. The customer agreements underlying the four SolarCity LMC transactions were leases and PPAs, whereas the SolarCity FTE transaction was comprised of solar loans.

Table 1

Pool Characteristics					
	SolarCity LMC Series I LLC(i)	SolarCity LMC Series II LLC(i)	SolarCity LMC Series III LLC(i)	SolarCity FTE Series 1 LLC(i)	SolarCity LMC Series V LLC(i)
No. of PV systems	5,033	6,596	15,915	11,293	5,645
ADSAB or ADSLB (mil. \$)	88	106	276	244	76
Aggregate PV system size (MW DC)	44	47	118	64	36
Weighted avg. customer agreement initial term (months)	223	237	240	360	240
Weighted avg. customer agreement remaining initial term (months)	201	225	233	358	224
Weighted avg. customer agreement seasoning (months)	22	12	7	2	16
Weighted avg. price per kWh (\$)	0.15	0.15	0.15	0.16	0.15
Weighted avg. customer agreement price per kWh fee escalator (%)	2.07	1.58	1.61	2.75	2.03
Percentage of ADSAB related to residential customers (%)	71	87	86	100	100
Weighted avg. FICO score (residential customer)	762	767	763	734	750
Percentage of ADSAB related to non-residential customers (%)	29	13	14	0	0

(i)Per each transaction's respective offering memorandum. ADSAB--Aggregate discounted solar asset balance. ADSLB—Aggregate discounted solar loan balance. PV--Photovoltaic. MW--Megawatt. DC--Direct current. kWh--Kilowatt hour.

Cash Flow Assumptions

The transaction's cash flows depend on a number of key inputs, some of which we derived from contractual terms or modeled based on historical performance, rating-dependent economic scenarios, and our expectations of market dynamics. We incorporated a variety of stresses by periodically reducing solar energy production estimates, customer agreement reassignments and renegotiations, and increases in operating and capital expenditures. Our internal cash flow model includes input assumptions for the following:

- Solar energy production estimates;
- Customer agreement reassignments and renegotiations; and
- Operating and capital expenditures.

Solar energy production estimates

Our assumptions for solar energy production estimates consider studies from the IE, which incorporate various factors, including solar resource variability, portfolio geographic distribution, system performance, and degradation.

Customer agreement reassignments and renegotiations

Our assumptions for customer agreement reassignment include the customer moving, customer home sales, customer defaults, and the potential for subsequent renegotiations. Factors that may influence the new renegotiated rate include the:

- Prevailing utility rate;
- Prevailing market solar contract rate (including those offered by competitors);
- Rate paid by the previous customer;
- Value proposition for using the solar system; and
- Competitive pressures from potential alternatives to solar technology.

Based on SolarCity's September 2015 reassignment data, more than 6,000 cases completed reassignments, constituting approximately 2% of the customers that the company has provided or contracted to provide systems or services to. Of those cases, more than 92% were because of a normal sale of a customer's home (i.e., not associated with foreclosure, short sale, death, or divorce). The remaining cases were because of various other reasons. A handful of the solar systems were removed, accounting for less than 2% of the total number of completed reassignments. The weighted average recovery rate for contract reassignments related to normal sale is over 99%, while the weighted average recovery rate for all other types of contract reassignments is approximately 95%. Of the total amount of completed contract reassignments, approximately 95% resulted in a full recovery, with the remainder resulting in a weighted average recovery of approximately 84% (see tables 2 and 3).

Table 2

Customer Contract Reassignments			
Reason for completed contract reassignment	% of completed contract reassignments	Completed contract reassignment as a % of customers SolarCity provided systems/services to	Recovery (%)⁽ⁱⁱ⁾
Normal sale	92.4	1.9	99
All other ⁽ⁱ⁾	7.6	0.1	95
Total	100.0	2.0	99

(i)Includes short sale, foreclosure, death, divorce, etc. (ii)Recovery is based on the present value of customer agreement cash flows before and after the contract reassignment. PV--Photovoltaic.

Table 3

Customer Contract Reassignment Results		
Result of reassignment	% of completed contract reassignments	Recovery (%)⁽ⁱ⁾
Full recovery	95	100
Less than full recovery	5	86
Total	100	99

(i)Recovery is based on the present value of customer agreement cash flows before and after the contract reassignment.

Operating and capital expenditures

The transaction documents specify that the manager's responsibility includes providing all administrative, collection, and management services for the assets that are subject to the master lease, as well as administrative, operations, maintenance, collection, and management services for assets that are no longer part of the master lease (including the period after the master lease is terminated). According to the transaction documents, the manager fee base rate is \$5 per kilowatt per year for all assets that are subject to the master lease and \$25 per kilowatt per year for all other assets, subject to a 2% annual increase.

Cash Flow Results

Because this asset class has a relatively limited operating history, we used related asset classes as a basis for our analysis of the distributed solar generation business model that underlies the transaction's cash flows. Solar technology has been around for decades; assumptions regarding production variance, system performance, and degradation have been used in Standard & Poor's-rated solar-related project finance transactions for years. Similarly, we examined residential mortgage customer defaults as a potential proxy for default risk, given similarities in customer credit profiles and cash flow duration.

We believe the primary drivers for determining the cash flows generated by the transaction are the production of solar energy estimates, the level of contract reassignment and renegotiation, and potential variations in operating costs. While we view the model results as good quantitative indications, qualitative measures may also affect the transaction's actual performance, including the:

- Originator's underwriting standards;
- Operations and management provider's strength and responsibilities;
- Economic value and savings associated with solar systems;
- Geographic diversity;
- Customer credit quality and diversity;
- Terms of the customer agreements;
- Portfolio seasoning and performance history;
- Quality and diversification of manufacturers of solar assets, including panels and inverters;
- System installation and maintenance quality;
- Duration and diversification of cash flow sources;
- Federal, state, and local government support and incentives;
- Pre-securitization financing arrangements, transaction asset ownership, and control structure;
- Level of third-party participation within the structure; and
- Political backdrop and regulatory framework.

Base-Case Scenario

Our base-case scenario assumes there are only cash flows from contractual obligations associated with customer agreements and PBI payments, which account for base-case assumptions on solar energy production estimates from studies provided by the IE. Further, our base-case scenario does not ascribe any recovery values to the solar assets beyond their existing contractual term. Under this scenario, the beginning DSCR for the transaction is approximately 1.85x, and our model indicated that the class A notes would be able to pay timely interest and full principal by its rated final maturity, and the class B would be able to pay ultimate interest and full principal by its rated final maturity.

Rating Scenarios

Our rating scenarios incorporate the base-case assumptions above, and stresses to solar energy production estimates, customer agreement reassignment and renegotiation, and operating and capital expenditures.

Solar energy production estimates

Our assumption considers solar energy production estimates provided by the IE, which include stresses on solar energy production estimates and system degradation (including potential induced degradation). We assumed a one-year P90 production volume for each year of the transaction. Panel technology risks stem from the variety of panels used, their limited track record, and their varying quality. Given the lack of a strong warranty provider and that solar panel quality can vary across different manufacturers, we referenced the IE's analysis, which stressed the degradation rates of the panels to approximately 1.2% per year.

Customer default

Our assumptions for customer default account for various factors, including customer credit quality, contract term, sum of scheduled customer payments, and geographic location. Under our rating scenarios, our residential customer default assumptions for the portfolio are approximately 20% in total for the class A notes and 10% for the class B notes; the first wave of defaults starts in year one, with the following waves starting approximately every 10 years afterwards. The defaults in later years are higher than the first wave of defaults, accounting for the potential downward drift of the customers' credit quality over time.

We further assume that 8% of the defaulted customers will be permanently removed from the portfolio upon default with zero recovery for the class A notes and 4% for the class B notes. The remaining portion of the defaulted contracts will not receive any cash flow for 24 months after the default for the class A notes and 12 months after the default for the class B notes, after which cash flow is assumed to restart at a renegotiated rate. This time lag is generally consistent with approaches used in various other asset classes. Typically, the renegotiated rate is lower than the existing contractual rate and will be a function of the prevailing utility rate and the market solar contract rate.

Customer moving/sale of the underlying property

We assume that approximately 10% of the pool (excluding the customer defaults above) will experience a customer move or sale of the underlying property each year, and the customer agreement will be subsequently renegotiated. Typically, the renegotiated rate is lower than the existing contractual rate and will be a function of the existing contractual rate before the move and the prevailing utility rate.

Voluntary customer renegotiation

For the portion of the portfolio that is current on its payments, we assume that 8% of the customers in the pool will voluntarily renegotiate if the contract rate rises meaningfully above either the prevailing utility or market solar contract rate for the class A notes, and 4% for the class B notes. Under that scenario, the renegotiated rate is lower than the existing contractual rate and will be a function of the prevailing utility rate and the market solar contract rate.

Prevailing utility rate

We believe that many factors can affect the trends for utility rates, including geopolitical landscape, infrastructure expenditure needs, renewable requirements, and commodity prices. We assume that utility rates will increase marginally per year with some level of stabilization in later years.

Prevailing market solar contract rate

In our opinion, many factors may affect the trends for market solar contract rates, including raw material and component costs, installed costs, system efficiencies, financing costs, external subsidies, and market competition. We

believe installed costs will continue to decline and that there will likely continue to be a meaningful relationship between cost and contract rates. We assume that market solar contract rates will remain stable for the next few years and then decline steadily per year with some level of stabilization in later years.

Operating and capital expenses

While the transaction documents specify the responsibilities borne by the manager, we assume the transaction cash flows will cover major capital expenses and needs, especially inverter replacement. Our assumption for inverter costs stresses the estimates provided by the IE, which accounts for some decline from today's prices.

Inverter replacement expenses

Liquidity is a focus in solar assets because the trust faces a significant capital expenditure item approximately every 12 years after each system is put into service, when the inverter needs to be replaced. This transaction, similar to prior transactions, has a reserve build-up leading up to this expected expense. To model the potential liquidity stress, we model inverter replacement every 12 years after the system installation date on average, plus or minus 24 months. The 24-month buffer around the expected inverter replacement date reflects our understanding that the replacement is unlikely to occur on the exact 12-year anniversary date of each system, but rather can occur either before or after this date due to various factors affecting the inverter life, as well as the analysis provided by the IE. We assume the inverter replacement cost at a price per watt DC reflecting reduced costs over the next 12 years based on IE estimates. However, for stress runs, we model inverter costs at levels closer to today's higher price per watt DC during the first replacement cycle, and at levels closer to the IE's estimates for the second replacement cycle.

To determine whether the available credit support is sufficient to withstand the assumed stresses, we examined various simulated cash flow scenarios by incorporating the assumptions above and varying the distribution of defaults. In each scenario, our model indicated that the class A notes would be able to pay timely interest and full principal by its rated final maturity and the class B would be able to pay ultimate interest and full principal by its rated final maturity.

Our rating assumptions are much more stressful than industry data or SolarCity's historical experience. The stresses examine potential scenarios in which the value proposition of existing customer contracts is less pronounced, especially when the customers' circumstances change. In our opinion, the value proposition/economic cost savings is the key variable in assessing the likelihood that customers will continue to make payments on their solar leases or PPAs versus renegotiating to preserve the economics.

Sensitivity Analysis

Sensitivity run 1: Management fee stress

Using the rating scenarios described above, we assumed that the management fee increased by 20% from the start of the stress. Under this scenario, the model indicated that the class A notes would be able to pay timely interest and full principal by its rated final maturity and the class B notes would be able to pay ultimate interest and full principal by its rated final maturity. The haircut to the base-case present value net cash flow is approximately 30%. In our opinion, this additional management and servicing fee stresses what could occur if the manager or servicer, or both, experienced a bankruptcy. While the manager and servicer fees are currently outlined in the transaction documents, we believe that

that these fees might be renegotiated in a manager's or servicer's potential bankruptcy scenario.

Sensitivity run 2: Additional system removal stress

Using the rating scenarios described above, we assumed that approximately 20%-30% of the defaulted customers will be permanently removed from the portfolio upon default with zero recovery. Under this scenario, the model indicated that the class A notes would be able to pay timely interest and full principal by its rated final maturity and the class B notes would be able to pay ultimate interest and full principal by its rated final maturity. The haircut to base-case present value net cash flow is approximately 33%.

Payment Priority

The transaction currently includes two classes of notes that will pay interest and principal semi-annually in the priority shown below in table 4.

Table 4

Payment Priority	
Payment	Priority
1	To the manager to pay sales, use, and property taxes that the issuer is required to pay for non-MLA solar assets.
2	The indenture trustee fee, subject to annual and cumulative limit.
3	The custodian fee.
4	The manager fee.
5	To the transition manager, the transition manager fee and if a manager termination event or an event of default continues, any transition manager expenses subject to annual and cumulative limits so long as no event of default has occurred.
6	To the class A noteholders, the note interest (which does not include post-ARD additional note interest).
7	To the class B noteholders, the note interest (which does not include post-ARD additional note interest).
8	To the manager for the sum of the cost of purchasing replacement inverters to the extent such costs are not reimbursed from the inverter replacement reserve account; any amounts required under a related production guaranty or as liquidated damages according to the management agreement, as applicable.
9	To the liquidity reserve account, the lesser of all remaining available funds and liquidity reserve account floor amount minus the amount on deposit in the account on such payment date.
10	To the inverter replacement reserve account, the inverter replacement reserve deposit.
11	To the noteholders: During a regular amortization period, first to the class A noteholders, the class A scheduled note principal payment; then the class B scheduled note principal payment; then to the class A noteholders, the unscheduled principal payment; then to the class B noteholders, any unscheduled principal payment; and then to the class B noteholders, any unpaid class B deferred interest. During an early amortization period or sequential interest amortization period, all remaining available funds to the class A noteholders until such balance is reduced to zero; and then to the class B noteholders to reduce the outstanding note balance of such class to zero and to pay any unpaid class B deferred interest.
12	To the liquidity reserve account, the lesser of all remaining available funds and liquidity reserve account required balance minus the amount on deposit in the account on such payment date.
13	To the indenture trustee, any extraordinary expenses not paid in item 2 above.
14	To the transition manager, any transition manager expenses not paid in item 5 above.
15	If applicable, to the letter of credit bank, any fees and expenses related to the letter of credit and any amounts which have been drawn under the letter of credit and interest due.
16	To the manager, any manager extraordinary expenses not paid to the various items above.
17	To the class A noteholders and the class B noteholders, in that order, their respective make-whole amount, if any.
18	To the class A noteholders and the class B noteholders, in that order, their respective post-ARD additional note interest and deferred post-ARD additional note interest due, if any.
19	To the lessee, any amounts due and payable by the issuer, as lessor, to the lessee under the MLA.

Table 4

Payment Priority (cont.)	
20	To the issuer, any remaining available funds.

ARD—Anticipated repayment date. MLA—Master lease agreement.

Events Of Default

Under the transaction documents, each of the following constitutes an event of default:

- Default on the interest payments--excluding class B deferred interest or post-anticipated repayment date (ARD) additional note interest--subject to a cure period;
- Default on principal payments at the rated final maturity;
- The issuer's insolvency;
- The issuer breaches on certain covenants or obligations, subject to a cure period;
- Any representation, warranty, or statement of the issuer proves to be materially incorrect, subject to a cure period;
- The indenture trustee fails to have a first-priority perfected security interest in the trust estate in the indenture trustee's favor;
- The issuer must register as an investment company under the Investment Company Act of 1940;
- The issuer becomes classified as an corporation for federal or state income tax;
- The depositor fails to pay liquidated damages amount for a defective solar asset according to the related contribution agreement;
- Any final non-appealable judgment in the amount of \$100,000 or more against the issuer not covered by insurance;
- Any default in paying the amount due by the performance guarantor under the performance guaranty, subject to a cure period; or
- The performance guarantor's failure to observe or perform any covenant or obligation set forth in the performance guaranty, subject to a cure period.

Early Amortization Period

Under the transaction documents, an early amortization period will occur if any of the following events or conditions occur and are continuing:

The DSCR is less than or equal to 1.15x for the applicable determination date and the immediate preceding determination date and a sequential interest amortization period is not in effect with respect to any non-MLA solar asset, SolarCity fails to make a payment to a host customer as required by a production guaranty and the issuer makes such payment according to item 8 of the payment priority (see table 4); or

- As a condition to accepting its appointment as a replacement manager, such replacement manager requires an ongoing manager fee base rate that is greater than the manager fee base rate of the outgoing manager.
- A DSCR sweep period (when the DSCR is less than or equal to 1.25) has continued for three consecutive determination dates

An early amortization period caused by the first item above will last until the DSCR is greater than 1.15x for two consecutive determination dates.

An early amortization period caused by the second or third item above will last until the outstanding balance of the notes has been reduced to zero.

An early amortization period caused by the fourth item above will last until the DSCR is greater than 1.25.

Sequential Interest Amortization Period

Under the transaction documents, a sequential interest amortization period will occur if any of the following events or conditions occur and are continuing:

- The DSCR is less than or equal to 1.00x for such determination date;
- Before the MLA's termination or expiration, the lessee fails to pay the rent due under the terms of the MLA by such determination date;
- An event of default shall have occurred; or
- On the anticipated repayment date, the aggregate outstanding note balance has not been reduced to zero.
- An early amortization period has continued for four consecutive determination dates

A sequential interest amortization period caused by the first item above shall continue until the DSCR is greater than 1.00x for the next determination date.

A sequential interest amortization period caused by the second item above shall continue until: (i) the determination date during which all unpaid rent and rent due on the rent payment date has been paid; or (ii) the master lease has either been terminated or has expired pursuant to its terms, and all of the solar assets have become non-MLA solar assets.

A sequential interest amortization period caused by the third item above shall continue until the event of default has been cured.

A sequential interest amortization period caused by the fourth item above shall continue until the aggregate outstanding note balance has been reduced to zero.

During a sequential interest amortization period, all available funds remaining after steps 1-10 of the payment priority in table 4 will be distributed first to the class A notes until such notes have been reduced to zero, second to the class B notes until such notes have been reduced to zero, and third, to the class B notes to pay any unpaid class B deferred interest.

DSCR Sweep Period

Under the transaction documents, the DSCR sweep period will commence on any determination date when the DSCR is less than or equal to 1.25x and a regular amortization period is in effect. A DSCR sweep period will continue until the DSCR is greater than 1.25x for two consecutive determination dates. During the DSCR sweep period, the liquidity reserve account required balance (item 12 in the payment priority) will equal the then-outstanding note balance.

Manager Termination Events

Under the transaction documents, a manager termination event will occur if certain events or conditions occur and are continuing, including:

- The manager fails to make any required payment, transfer, or deposit within three business day of when it's required;
- The manager fails to deliver the semi-annual manager report within five business days;
- The manager fails to materially observe or perform any covenant or agreement contained in the transaction documents;
- Certain events of bankruptcy, insolvency, receivership, or reorganization of the manager occur;
- Any representation, warranty, or statement of the manager made in any transaction documents shall prove to be incorrect in any material respect;
- The manager ceases to be engaged in the business of monitoring or maintaining energy equipment of a type comparable to the related PV systems;
- An event of default has occurred and is continuing if SolarCity is the manager;
- If the monthly DSCR is less than 1.05x for two consecutive determination dates; and
- The termination of the maintenance services agreement by the lessee for failure by the maintenance services provider to perform its material obligations thereunder, subject to a cure period.

DSCR

According to the transaction documents, the DSCR is calculated by dividing the sum of aggregate customer payments, PBI payments, utility or state rebate, and insurance proceeds (minus the manager fee, transition manager fee, custodian fee, and indenture trustee fee) by the sum of note interest (in all cases, assuming a nonsequential interest amortization period for such payment date) and scheduled note principal payment for the related payment date.

Legal Matters

We expect the issuers' special-purpose entity provisions to be consistent with Standard & Poor's bankruptcy-remoteness criteria. In rating this transaction, Standard & Poor's will review the legal matters that it believes are relevant to its analysis, as outlined in its criteria.

Surveillance

We will maintain active surveillance on the rated notes until the notes mature or are retired. The purpose of surveillance is to assess whether the notes are performing within the initial parameters and assumptions applied to each rating category. The transaction terms require the issuer to supply periodic reports and notices to Standard & Poor's for maintaining continuous surveillance on the rated notes.

Related Criteria And Research

Related Criteria

- Revised Assumptions For Rating U.S. RMBS Prime, Alternative-A, And Subprime Loans Incorporated Into LEVELS Version 7.4.3, June 1, 2015
- Principles For Rating Debt Issues Based On Imputed Promises, Dec. 19, 2014
- Key Credit Factors For Power Project Financing, Sept. 16, 2014
- Global Investment Criteria For Temporary Investments in Transaction Accounts, May 31, 2012
- Principles Of Credit Ratings, Feb. 16, 2011
- Understanding Standard & Poor's Rating Definitions, June 3, 2009
- Legal Criteria For U.S. Structured Finance Transactions: Special-Purpose Entities, Oct. 1, 2006

Related Research

- With Limited Operating History In The Sector, Solar Transactions Will Remain At The 'BBB' Rating Level -- For Now, July 10, 2015
- Global Structured Finance Scenario And Sensitivity Analysis: Understanding The Effects Of Macroeconomic Factors On Credit Quality, July 2, 2014
- Will Securitization Help Fuel The U.S. Solar Power Industry?, Jan. 23, 2012

In addition to the criteria specific to this type of security (listed above), the following criteria articles, which are generally applicable to all ratings, may have affected this rating action: "Post-Default Ratings Methodology: When Does Standard & Poor's Raise A Rating From 'D' Or 'SD'?", March 23, 2015; "Global Framework For Assessing Operational Risk In Structured Finance Transactions," Oct. 9, 2014; "Methodology: Timeliness of Payments: Grace Periods, Guarantees, And Use of 'D' And 'SD' Ratings," Oct. 24, 2013; "Counterparty Risk Framework Methodology And Assumptions," June 25, 2013; "Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings," Oct. 1, 2012; "Methodology: Credit Stability Criteria," May 3, 2010; and "Use of CreditWatch And Outlooks," Sept. 14, 2009.

Copyright © 2016 Standard & Poor's Financial Services LLC, a part of McGraw Hill Financial. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED, OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses, and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw, or suspend such acknowledgement at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal, or suspension of an acknowledgement as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription) and www.spcapitaliq.com (subscription) and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.