

# Sunnova Helios V Issuer, LLC

**Solar Loan Backed Notes, Series 2021-A**

\$188,641,000 Asset Backed Securities



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## Executive Summary

This new issue report summarizes Kroll Bond Rating Agency's (KBRA) analysis of Sunnova Helios V Issuer, LLC, Series 2021-A, a \$188.641 million residential solar loan ABS transaction. The report is based on information as of February 16, 2021. This report does not constitute a recommendation to buy, hold, or sell securities. KBRA's rating does not address the payment of the Post-ARD (Anticipated Repayment Date) Additional Interest Amounts. See the [Transaction Structure](#) section for additional information on the transaction's priority of payments.

Rated Notes					
Class	Initial Amount (\$)	Interest Rate	Legal Final Maturity Date	Initial Credit Enhancement *	KBRA Rating
Class A	150,079,000	1.80%	Feb 20, 2048	29.00%	A- (sf)
Class B	38,562,000	3.15%	Feb 20, 2048	10.50%	BB- (sf)
<b>Total</b>	<b>188,641,000</b>				

\* Including overcollateralization and the Reserve Account, and excluding the Capitalized Interest and Section 25D Interest Accounts

## Transaction Overview

Sunnova Energy Corporation ("Sunnova", or the "Company") is a Houston, TX based independent solar power company that provides low-cost solar electricity to homeowners, and a wholly-owned subsidiary of Sunnova Energy International Inc. ("SEI"), a public company. The Company started its operations in January 2013 and began providing solar energy services under its first operating Photovoltaic ("PV") system in April 2013. As of September 30, 2020, the Company served a total customer count of over 98,000 in more than 20 U.S. states and territories. Sunnova provides its services through long-term residential solar service agreements ("SSA") in the following formats i) as leases, ii) Power Purchase Agreements (PPAs), and iii) Loans (Easy Own Agreements, SunSafe Easy Own Agreements, and SunSafe Agreements). Only solar loan agreements are included in the securitization trust. The Company originates loans to mostly prime credit quality homeowners through its partnerships with local dealers.

This transaction, Sunnova Helios V Issuer, LLC, Solar Loan Backed Notes, Series 2021-A ("Sunnova 2021-A"), represents the third term loan ABS securitization collateralized by secured residential consumer solar loans originated by Sunnova. The Company has issued four 144A transactions collateralized by their lease and power purchase agreement (PPA) products. Sunnova 2021-A will issue two classes of notes in an aggregate principal amount of approximately \$188.6 million (collectively the "Notes"). The Notes are backed by a pool of mostly prime quality residential consumer solar loans financing solar energy systems, including Photovoltaic (PV) Systems, Energy Storage Systems (ESS), or both. Credit enhancement for the notes consists of i) overcollateralization ii) subordination (in the case of Class A Notes) iii) excess spread and iv) amounts on deposit in the Reserve Account, the Capitalized Interest Account, the Section 25D Interest Account, and the Equipment Replacement Reserve Account.

The transaction will be collateralized by approximately \$208.4 million of residential solar loans, of which approximately 13% will be prefunded at closing. The \$181.255 million residential solar loans in the statistical pool includes Sunnova's Easy Own (70.0%), SunSafe Easy Own (27.1%), and SunSafe (2.9%) loan agreements. Sunnova's residential solar loan agreements have a 10-year (1.6%), 15-year (1.5%), or 25-year (96.9%) original term. As of the statistical cutoff date, the average current balance, weighted average remaining term, weighted average seasoning and weighted average current interest rate of loans in the statistical pool is \$34,400, 290 months, 5 months and 3.94%, respectively. The average borrower in the statistical pool is a homeowner with a weighted average original FICO score of 733. The PV systems

representing approximately 73% of the loans in the statistical pool have the benefit of a production guarantee. In addition, the securitization trust will pay the operations and maintenance (O&M) fee on the PV and/or battery storage systems.

Sunnova focuses on continued customer savings and underwrites contracts below utility retail prices. The Company’s underwriting standards are based on multiple metrics including FICO scores, TEC (Telecommunications, Energy, and Cable) Scores, and other regional specific concerns. The Company continuously refines its underwriting standards based on feedback from billing and collections experience across its platform. The initial customer credit standards include: minimum FICO score of 650, full credit check (credit agency report), and payment method or bank account verification.

The transaction parties for Sunnova 2021-A are listed below:

<b>Transaction Parties</b>	
Issuer	Sunnova Helios V Issuer, LLC, a wholly-owned, direct subsidiary of the Depositor and a wholly-owned, indirect subsidiary of Sunnova ABS Holdings V, LLC (Sunnova ABS Holdings V), which is a wholly-owned, indirect subsidiary of Sunnova Energy Corporation.
Depositor	Sunnova Helios V Depositor, LLC
Sponsor/ Originator/ Parent Guarantor	Sunnova Energy Corporation ("Sunnova")
Manager/ Servicer	Sunnova ABS Management, LLC ("Sunnova Management"), a wholly owned, direct subsidiary of Sunnova
Indenture Trustee/ Backup Servicer/ Transition Manager	Wells Fargo Bank, National Association ("Wells Fargo")
Custodian	U.S. Bank National Association (U.S. Bank)
Initial Purchasers	Credit Suisse Securities (USA) LLC and Popular Securities

## Key Credit Considerations

### Potential COVID-19 Implications

The consumer loan sector continues to be impacted by the economic effects of COVID-19. As a result of the crisis, unemployment is elevated, at 6.7% in December 2020, although it has declined from its high of 14.7% in April 2020. Despite current unemployment, credit performance has been better than expected. KBRA believes this is attributable to stimulus measures taken by the government in the Spring and Summer of 2020 which included both a direct cash payment to eligible adults as well as enhanced unemployment benefits.

Additionally, assistance programs offered by other lenders allowed some borrowers to defer monthly obligations on student loan and mortgage payments, which has freed up funds to pay their consumer loans.

In December 2020, the federal government approved an additional stimulus package which included measures similar to those provided earlier in 2020; however, it is more limited in scale. These measures, among other factors, could affect delinquency rates in the coming months. Potential factors that may impact delinquency rates include the potential expiration of previously granted assistance by other lenders and increasing numbers of COVID cases that may necessitate lockdowns to facilitate virus containment.

In considering this risk, KBRA applied an upward adjustment to its base case loss assumption based on current and projected unemployment. The adjustment was derived from KBRA's analysis of the relationship between the historical unemployment rate and annualized gross loss rates through the 2008-2009 financial crisis for different types of lending products.

### Company's Response to COVID-19

The Company has taken the following steps to manage their business in response to the pandemic:

- Operations: Sunnova has implemented a work-from-home policy for employees in its headquarters and adopted a return to operations policy for its offices. The Company has also developed maintenance procedures for COVID-19 that cover managing customer interactions, related to minimizing contact and social distancing.
- Origination: Sales levels declined in April 2020 but resumed in May 2020. The Company's originations in August and September 2020 were 182% and 163%, respectively, of the same periods in 2019.
- Underwriting: Sunnova has not made changes to its underwriting criteria due to COVID-19.
- Servicing and Collections:
  - Sunnova has not changed its collection policy. Collection rates in 2020 remained consistent with 2019 levels.
  - Sunnova offered extensions beyond the normal draft date up to 10-14 days, however Sunnova did not suspend the cycle of bills and payments. Sunnova considers such extensions more effective than a forbearance/deferral or removing a customer from auto payment. The number of extensions peaked at 155 in April 2020, but declined to 44 in May, 23 in August and 1 in December 2020.

## Sunnova's Financial Conditions and Liquidity

Sunnova has been a publicly traded company since July 2019. The Company's stock trades on the New York Stock Exchange under the ticker "NOVA". The Company has incurred operating losses since inception. However, its adjusted EBITDA turned positive in 2016 and has remained as such since then. In September and October 2020, Sunnova closed a \$60 million loan facility and increased its warehouse funding capacity by \$162.5 million. As of September 30, 2020, Sunnova had \$127.1 million of restricted cash and \$84.6 million of unrestricted cash. Sunnova will use the net proceeds from the issuance of the Sunnova 2021-A Notes to repay a portion of one or more existing financing arrangements of Sunnova or its affiliates.

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## Transaction Structure

Initial credit enhancement level (including overcollateralization and the Reserve Account, and excluding the Capitalized Interest Account and the Section 25D Interest Account) for the Class A and B Notes will be 29.0% and 10.5%, respectively, of the aggregate solar loan balance. The transaction also includes an Equipment Replacement Reserve Account (ERRA) that is unfunded at closing.

The Capitalized Interest Account will be funded at closing with approximately \$0.15 million to cover the interest on the notes during the prefunding period, which is three months after closing.

The Section 25D Interest Account will be funded at closing with approximately \$1.9 million based on assumptions for the prefunded loans to cover interest waivers earned by the borrowers during the federal income tax credit (ITC) period.

The ERRA will be established to pay for the costs of replacing inverters and batteries that no longer have the benefit of manufacturer warranty. The account is unfunded at closing and will be funded from the transaction waterfall to the extent funds are available.

**Interest Payment Priority:** While interest to the Class A and B Notes is always sequential, the Class B interest will be deferred while the Class A Notes are still outstanding during the Sequential Interest Amortization Period. The portion of the Class A note interest attributable to the accrual on the unreimbursed Note Balance Write-Down Amounts, if any, can also be deferred.

**Principal Payment Priority:** Principal on the Notes will first be paid pro rata based upon the initial note balance of each class of Notes in an amount equal to the sum of principal collected, the principal defaulted that was not substituted for or repurchased by the depositor, minus the OC release amount. Until the OC target is reached, remaining funds will be used to further pay down the Notes, in a reverse sequential order, i.e., to Class B and Class A notes, in that order, until each class of notes is paid in full. If a Sequential Amortization Event is breached, or on any date following the ARD, all remaining funds will be used to pay down the Notes in sequential order until the trigger breach is cured.

KBRA considered the structural characteristics and credit enhancement of the proposed transaction in determining the ratings of each class of Notes. The credit enhancement levels are sufficient to cover KBRA's corresponding stressed cash flow assumptions for the ratings on the Notes.

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**Class B Interest Payments May Be Deferred**

Interest on any unreimbursed note balance write-down amounts and on the Class B Notes during a Sequential Interest Amortization Period (“Deferred Interest”) will be deferred and paid after Class A interest, principal and amounts allocated to pay to the Manager the cost of equipment replacements not reimbursed from the ERRA and to replenish the ERRA to its requirement.

KBRA views the mechanism for deferral of some portion of interest on the Class B Notes as a credit positive for the Class A Notes but credit negative for the Class B Notes as during a Sequential Interest Amortization Period, these amounts are paid after principal payments on the Class A Notes and other priorities, which further subordinates the obligations of the Class B Notes relative to the Class A Notes.

KBRA’s rating does not address the payment of the Post-ARD (Anticipated Repayment Date) Additional Interest Amounts. See the [Transaction Structure](#) section for additional information on the transaction’s priority of payments.

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**Strength of Originator and Servicer**

Sunnova is a capable originator/aggregator and servicer of residential solar leases, PPAs, and solar loans. The Company began operating in the residential solar market in January 2013 and has developed a broad network of over 270 active dealers to deliver renewable energy to more than 98,000 homeowners across more than 20 U.S. states and territories. Sunnova’s management team is experienced and has the capability to manage growth in the competitive solar financing industry and service the solar loan portfolio.

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**Prime Quality of Underlying Borrowers**

Sunnova applies a minimum FICO of 650, conducts a full credit check, and verifies payment method or bank account in its customer credit standards, which are measured at time of signing the initial solar loan agreement. As of the statistical cutoff date, the weighted average FICO of the underlying borrowers was 733. Borrowers with a FICO score greater than 680 represented 80.8% of the current principal balance of the solar loans in the transaction. See [Collateral Analysis](#) for additional detail on the solar loan portfolio characteristics.

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**Interest Waiver**

The securitization is supported by three loan products; Easy Own (70.0%), SunSafe Easy Own (27.1%), and SunSafe Agreements (2.9%). Other than SunSafe, all products contain a feature where a borrower is not required to make interest payments on the prepaid portion of the solar loan balance equal to the anticipated federal income tax credit (“ITC”) amount, which is 30% of the total amount financed for the solar systems placed in service in 2019 and 26% for those placed in service in 2020. To the extent the borrower makes a partial or full prepayment on the ITC portion of a solar loan balance (“ITC Prepayment”) on or before the scheduled ITC payment date (typically 18 months from the date on which the PV system receives permission to operate), the amount of accrued but unpaid interest on the prepaid portion of the solar loan balance is waived, and the amount of accrued but unpaid interest associated with the remaining balance of the 30% or 26% ITC portion is capitalized and added to the outstanding solar loan balance. KBRA notes that loans originated in Puerto Rico after June 2018 do not include the ITC prepayment incentive.

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### **Borrower Payment Step-Up**

Under Sunnova's Easy Own and SunSafe Easy Own agreements, a borrower pays a fixed flat monthly payment, which is based on the 70% or 74% of the solar loan balance, for the first 18 months. If the borrower makes the full ITC Prepayment on or before the ITC payment date, the monthly payments will remain the same. Otherwise, the borrower's monthly payments will increase for the remaining term of the solar loan agreement reflecting an amortization of the remaining portion of the 30% or 26% of the total amount financed plus interest over the remaining monthly payments. KBRA notes that loans originated in Puerto Rico after June 2018 do not have the payment step-up feature.

While the interest waiver feature may provide incentive for borrowers to prepay their loans faster, thus potentially reduces the probability and/or exposure at default, the offsetting factor is that under the Easy Own or SunSafe Easy Own agreement, a borrower may experience a payment shock as his or her monthly payments will step up significantly if the ITC Prepayment is not made. Additionally, KBRA notes that loans that result in higher monthly payments when borrowers fail to make a prepayment during the term of a loan may potentially invite the scrutiny of consumer protection regulators.

### **Limited Performance Data**

Sunnova has limited operating history for its originations, servicing and underwriting criteria used to originate the solar loans held as collateral in this securitization. Sunnova began originating solar loans in 2Q15 and therefore provided KBRA with no more than 6 years of performance data on loans that mostly have a 25-year term. These solar loans have not been through a full loan life cycle. In addition, the earlier vintages have small loan volumes and represent a loan product (EZ Own) that Sunnova terminated in 1Q17.

The 2015-2018 and some 2019 monthly vintages are seasoned beyond the 18-month point where customers are expected to apply the ITC prepayment and receive interest waiver.

Given its limited historical performance data, Sunnova commissioned a major credit bureau to conduct a proprietary study of "home related" unsecured consumer loans for loans that closely resemble residential solar project loans. KBRA used this gross default data in combination with Sunnova's managed portfolio performance data to derive a loss timing curve and gross default assumptions by FICO and loan term cohort, and then compared these results to other consumer loan defaults for borrowers with similar credit quality. KBRA treated the loans as unsecured loans even though they are secured by the solar systems and UCC1 filings and the solar loan results in monthly electrical savings compared to only purchasing energy from the grid.

KBRA assumed additional losses to account for performance guarantors failing to honor their obligation, which may cause the consumers to try to offset this amount against their corresponding loan. KBRA did not assume additional losses at key maintenance periods when inverter replacement is likely and when O&M warranty payments are not made, due to the establishment of the ERRA in this transaction. Break-even loss multiples were stressed to KBRA's loss multiple range for each note rating category.



**Prefunded Solar Loans**

Approximately 13% of the \$208.4 million 2021-A total collateral pool will be prefunded at closing. The additional solar loans will be purchased into the securitization trust within the three-month prefunding period after the closing date. These additional solar loans will be subject to eligibility criteria and concentration limits. See [Transaction Structure](#) at the end of this report for complete definitions of both. KBRA notes that all loans purchased into the trust at closing or during the prefunding period will have achieved permission to operate (PTO).

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A capitalized interest account will be established and funded at closing to cover the interest accrued on the notes during the prefunding period. In its cash flow analysis, KBRA assumes the worst pool mix for the prefunded pool as allowed by the eligibility criteria and concentration limits. .

**Solar Loans Financing PV Plus ESS**

The initial collateral pool will consist of approximately 27.1% SunSafe Easy Own loans, which financed customers’ purchases of both the PV system and ESS. The useful life of the battery in an ESS is around 10 years, while the SunSafe Easy Own original loan term is 25 years. A loan term that is longer than the useful life of the ESS (i.e. battery), may potentially induce selective defaults from borrowers. However, unlike an inverter, a solar system can remain functional without the battery and can use the grid as storage.

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**Geographic Concentration**

The collateral pool for this transaction has high geographic concentrations in California, Puerto Rico, and Texas, representing 38.5%, 21.0% and 8.7%, respectively, of the initial pool balance. The next largest state concentrations are in New Jersey (7.3%), Massachusetts (4.1%), and Arizona (3.9%). The concentration of receivables in the top five states is 83.6% of the total pool balance as of the statistical cutoff date. Adverse economic conditions, regional recessions, natural disasters, pandemics like COVID-19 and regulatory changes in a region where obligors live may negatively impact loan performance or collections.

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Approximately 21% of the loans in the 2021-A statistical pool were related to solar PV Systems and/or ESS located in Puerto Rico (PR), and the subsequent purchases of such loans during the prefunding period are limited to 21%. Sunnova started originating residential solar loans in PR from May 2018. KBRA reviewed Sunnova’s static pool-based default data for loans located in PR and compared with those for loans located elsewhere. The earlier vintages of PR loans have started to show worse performance than that of the non-PR loans. KBRA assumes that the divergence in performance will persist and has adjusted its base case default assumption accordingly.

**Recent Developments in Puerto Rico**

Hurricanes Irma and Maria in September 2017, a series of earthquakes in December 2019 and early 2020, and the COVID-19 pandemic have caused disruptions to the electricity grid of PR and weakened its economy.

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Although Puerto Rico Electric Power Authority (PREPA) has restored power to the entire island, intermittent or reduced electrical grid operation, necessary to operate PV Systems that are not paired with ESS, continues to result in blackouts and brownouts. All of Sunnova financed PV Systems in PR are paired with ESS.

All solar assets located in PR in the portfolio are also now fully operational and related host customers are not delinquent on their contractual payments. For customers with damaged systems, necessary repairs (including those related to panels, inverters, meters and other equipment) were made by the Company.

**Production Guaranty**

Sunnova guarantees minimum power production under all of the solar loan agreements where permitted by law, meaning that it will compensate the borrower financially if the PV system does not meet minimum production levels (a "Production Guarantee"). Production Guarantees are typically set at a production level that is less than the level warranted by the system manufacturer.

According to Federal Trade Commission rules, a consumer's claim against a seller of goods and services may also be asserted against a lender that finances the purchase of such goods and services. The consumer's claims and defenses, if valid, may be used to offset, reduce or suspend payment on a Solar Loan and/or as grounds for recovering prior payments made on such Solar Loan (up to the amount previously paid). As a result, the borrower with a valid claim may be entitled to stop payment or seek a refund of prior payment based on a product liability, faulty installation, breach of warranty, or other claims against the Installer.

Although KBRA believes that Production Guarantee is a positive factor in that it enhances the borrower's satisfaction with the PV system, failure by Sunnova to honor the Production Guarantees may lead to selective borrower defaults. The risk of selective defaults associated with claims against Sunnova as the production guarantor was incorporated into KBRA's base case loss assumption.

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**O&M Fee Paid by the Securitization Trust**

Unlike solar loan securitizations of other issuers, the Sunnova 2021-A securitization trust will pay a fee to the Manager for performing O&M duties on the PV systems and/or ESS related to the solar loans in the Sunnova 2021-A pool. KBRA considers this a credit positive as opposed to O&M fees paid by the borrower or an unrated third-party outside of the securitization as it improves system operation and the borrower's experience with the PV system.

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**Performance Guaranty by Sunnova**

Sunnova, as parent guarantor, will agree to cause the due and punctual performance by Sunnova ABS Holdings V, the Depositor, the Manager and the Servicer of their respective obligations under the relevant agreements, including repurchase of a Defective Solar Loan and payment to Substitution Shortfall Amounts in respect of Qualified Substitute Solar Loans, and to pay all expenses incurred by the Issuer and the Indenture Trustee in the enforcement of any of their respective rights against Sunnova ABS Holdings V under various agreements. KBRA views the performance guaranty positively. However, no credit is given to the guaranty as Sunnova, as the guarantor, is an unrated entity.

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**Solar Loans Result in Savings on Utility Bills**

The solar loans in the 2021-A statistical pool have either a 10-year (1.6%), a 15-year (1.5%) or a 25-year original term (96.9%). Solar loans with longer tenors typically result in monthly savings, while shorter tenor loans typically result in lifetime savings but not

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necessarily monthly savings. Therefore, solar loan payments can be viewed as displacing utility payments and reducing the overall household electricity payments rather than increasing monthly debt payments. Borrowers have an incentive to pay their solar loan to avoid reverting to higher monthly utility expenses. Energy costs are expected to rise over the long term which would create additional value/savings for Sunnova’s borrowers when compared to traditional utility sources. This value creation has the potential to reduce losses compared to other consumer loan portfolios, although the inclusion of ESS in financing may slightly weaken the value proposition due to increased monthly payments.

**Optional Repurchase of Defaulted Solar Loans**

Sunnova has the option, but not the obligation, to repurchase defaulted Solar Loans for a price equal to the current loan balance and accrued interest prior to becoming a defaulted loan. However, this option is limited to 10% of the aggregate original collateral balance. While this option has the potential to lower defaults for the transactions, KBRA did not give any credit for this when determining its base case cumulative default range or when running its stressed cash flow analysis to determine the appropriate ratings.

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**Managing Dealer Risk**

Sunnova is a specialty finance company that originates solar loans through a geographically diverse network of independent dealers. Qualifications to be a dealer include experience in the residential solar industry or success in complementary industries, experienced and appropriately certified employees, and possession of applicable licenses. Sunnova also performs a qualitative financial review of prospective dealers as part of its recruitment process, which includes evaluating a dealer's financial condition. Sunnova actively reviews its dealers' performance and compliance with its requirements to determine whether to terminate its relationship with any dealer that is unable to meet its performance standards.

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As of September 30, 2020, Sunnova had over 270 active dealers and sub-dealers. As of the statistical cutoff date, 22.1%, 11.8% and 10.3% of the aggregate solar loan balance in the Sunnova 2021-A statistical pool were originated through its top three dealers. The significant concentration in a few dealers could expose the transaction to increased risks of delinquencies or defaults on the solar loans referred by the dealers, if they delivered substandard products or services, go bankrupt, or go out of business. No other dealer accounted for more than 7% of the aggregate solar loan balance.

**Layering of Risks**

KBRA’s report describes the various risks regarding the underlying solar consumer loans and the terms of this securitization; however, the interplay of multiple risk factors may result in default or loss rates which are higher than expected. The risks include limited performance data and use of proxy data, limited corporate operating history, the risk of manufacturers, installers or performance guarantors failing to honor their warranties/guarantees, collateral with monthly payments that may increase due to capitalized interest, longer term consumer loans, changing regulation and changing technology.

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## Transaction Summary

The chart below summarizes the characteristics of the initial collateral pool and credit enhancement structure of the Sunnova 2021-A transaction.

Deal name	Sunnova 2021-A	Sunnova 2020-A	Sunnova 2019-A
Transaction Date	2/16/2021*	6/19/2020	6/27/2019
<b>Collateral Stratification</b>			
Current Pool Balance	\$181,254,889	\$181,133,916	\$186,255,857
Number of Loans	5,269	5,601	6,196
Average Loan Balance	\$34,400	\$32,340	\$30,061
WA Avg Coupon	3.94%	5.28%	5.94%
WA FICO	733	735	729
WA Original Term (months)	295	296	300
WA Remaining Term (months)	290	291	286
<b>FICO Distribution</b>			
650-660	6.78%	6.13%	7.19%
661-680	12.39%	11.68%	13.24%
681-700	11.96%	11.64%	13.90%
701-720	11.73%	11.41%	12.90%
721-740	11.69%	11.57%	11.39%
741-760	11.93%	12.34%	10.48%
761-780	12.59%	12.88%	11.79%
781-800	10.52%	12.23%	10.49%
801-820	7.56%	7.49%	6.18%
821-840	2.82%	2.53%	2.39%
841 & higher	0.02%	0.11%	0.04%
<b>Geographic Concentration</b>			
State 1	CA: 38.50%	CA: 32.29%	CA: 36.21%
State 2	PR: 20.97%	NJ: 20.01%	NJ: 33.04%
State 3	TX: 8.74%	PR: 16.97%	MA: 9.53%
<b>% Credit Enhancement</b>			
Initial OC	9.50%	12.50%	10.00%
Target OC **	10.00%	13.00%	15.00%
Initial Reserve	1.00%	1.00%	1.00%
Reserve Floor	0.10%	0.10%	0.10%
<b>Excess Spread Summary</b>			
Collateral APR	3.94%	5.28%	5.94%
WA Bond Coupon	2.07%	3.56%	3.97%
Servicing and Other Fees	0.58%	0.58%	0.57%
Annual Excess Spread	1.29%	1.14%	1.40%
<b>% Total Initial Credit Enhancement ***</b>			
A (sf) Class	--	--	26.00%
A- (sf) Class	29.00%	26.00%	--
BBB (sf) Class	--	--	18.00%
BB (sf) Class	--	--	11.00%
BB- (sf) Class	10.50%	13.50%	--
<b>KBRA Base Case</b>			
KBRA Base Case Loss Range	9.80% - 11.80%	9.25% - 11.25%	10.00% - 12.00%

\*Collateral stratification as of 12/31/2020.

\*\*Percentage of the Aggregate Closing Date Collateral Balance

\*\*\* Including overcollateralization and the Reserve Account, and excluding the Capitalized Interest and Section 25D Interest Accounts

## Key changes from Sunnova 2020-A

Summarized below are the key changes to the collateral and structure from Sunnova 2020-A:

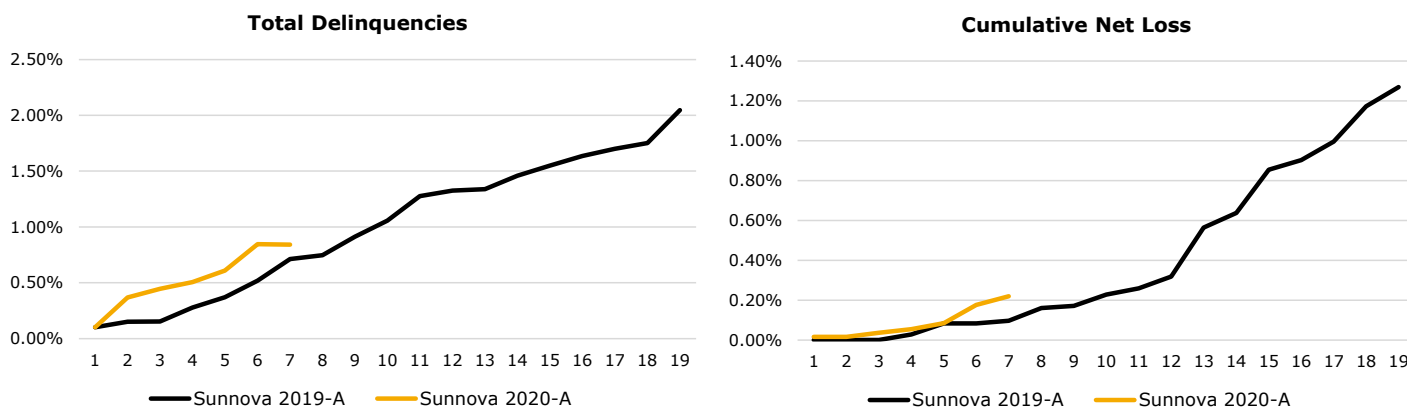
Collateral																								
No Pre-PTO Loans	The collateral in the 2021-A transaction will not contain any loans prior to obtaining PTO, while in the 2020-A pool there were 13.6% pre-PTO loans as of the statistical cutoff date.																							
Inclusion of Prefunding Account	Unlike Sunnova 2020-A, Sunnova 2021-A will include a prefunding account. Approximately 13% of the 2021-A total collateral pool will be prefunded at closing. The additional solar loans will be purchased into the securitization trust within the three-month prefunding period after the closing date, and subject to eligibility criteria and concentration limits.																							
Transaction Structure																								
Credit Enhancement	The Sunnova 2021-A structure has changed compared to Sunnova 2020-A in the following ways:																							
	<table border="1"> <thead> <tr> <th></th> <th>Sunnova 2021-A</th> <th>Sunnova 2020-A</th> <th>Sunnova 2019-A</th> </tr> </thead> <tbody> <tr> <td>Initial OC</td> <td>9.50%</td> <td>12.50%</td> <td>10.00%</td> </tr> <tr> <td>Target OC</td> <td>10.00%</td> <td>13.00%</td> <td>15.00%</td> </tr> <tr> <td>Initial Reserve</td> <td>1.00%</td> <td>1.00%</td> <td>1.00%</td> </tr> <tr> <td>Reserve Floor</td> <td>0.10%</td> <td>0.10%</td> <td>0.10%</td> </tr> <tr> <td>Annual Excess Spread</td> <td>1.29%</td> <td>1.14%</td> <td>1.40%</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Initial and Target Overcollateralization for Sunnova 2021-A will be 9.50% and 10.00%, respectively, compared with 12.50% and 13.00%, respectively, for Sunnova 2020-A.</li> <li>The estimated annualized excess spread for Sunnova 2021-A is 1.29%, compared with 1.14% for Sunnova 2020-A.</li> </ul>		Sunnova 2021-A	Sunnova 2020-A	Sunnova 2019-A	Initial OC	9.50%	12.50%	10.00%	Target OC	10.00%	13.00%	15.00%	Initial Reserve	1.00%	1.00%	1.00%	Reserve Floor	0.10%	0.10%	0.10%	Annual Excess Spread	1.29%	1.14%
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Capitalized Interest and Section 25D Interest Accounts	In Sunnova 2021-A, the Capitalized Interest Account will be re-defined to cover note interest during the prefunding period, and a Section 25D Interest Account will be created to cover interest waivers during the ITC prepayment period.																							
Sequential Amortization Event	<ul style="list-style-type: none"> <li>An Event of Default (EOD) will cease to be a Sequential Amortization Event once the EOD is no longer continuing, rather than until the notes are paid in full in Sunnova 2020-A.</li> <li>The shortfall of principal distribution amount is changed to 25% from 20%.</li> </ul>																							

## Performance Summary of Sunnova Solar Loan Securitizations

Sunnova has issued two other securitizations collateralized by solar loans, Sunnova Helios III Issuer, LLC, Solar Loan Backed Notes, Series 2019-A ("Sunnova 2019-A") and Sunnova Helios IV Issuer, LLC, Solar Loan Backed Notes, Series 2020-A ("Sunnova 2020-A"). The table below provides the performance summary of Sunnova 2019-A and Sunnova 2020-A as of the January 2021 payment date.

Deal	Month Seasoned	Pool Factor	Note Factor	Delinquency Rate	Loss - Current CNL	Current Period Trigger Threshold	Current Monthly CPR	Most Senior Class Remaining	Initial Class Enhancement	Current Class Enhancement (1)	Initial OC	Current OC	Current KBRA Base Case Loss Range	Closing Date
Sunnova 2019-A	19	84.60%	79.81%	2.05%	1.27%	9.00%	4.34%	A	27.01%	30.25%	10.00%	15.10%	10.00% - 12.00%	6/27/2019
Sunnova 2020-A	7	92.53%	90.89%	0.84%	0.22%	6.00%	10.17%	A	27.21%	27.89%	12.50%	14.05%	9.25% - 11.25%	6/19/2020

Total delinquency has been increasing as the transactions age. Cumulative net loss is generally following similar trends.



## **KBRA Process**

KBRA analyzed the transaction using the [Global General Rating Methodology for Asset-Backed Securities](#), [Global Consumer Loan ABS Rating Methodology](#), and the [Global Structured Finance Counterparty Methodology](#). This transaction falls within Category 1 – Financial Assets, which typically relates to transactions that are backed by pools of consumer or commercial financial obligations owed by diverse obligors.

KBRA’s general methodology incorporates an analysis of: (1) the underlying collateral pool, (2) historical static pool data, segmented by characteristics including credit quality and product type, (3) the proposed capital structure for the transaction, (4) KBRA’s operational assessment of the originator and servicer, and (5) the legal structure, transaction documents, and legal opinions.

## **Corporate Overview**

The following corporate overview is based on information provided by Sunnova.

### **Originator and Manager Overview**

Founded in 2012 and headquartered in Houston, TX, Sunnova is an independent solar power company that provides low-cost solar electricity to homeowners, serving more than 98,000 customers in more than 20 U.S. states and territories as of September 30, 2020. Sunnova is engaged in financing and servicing solar energy systems. Sunnova works hand-in-hand with local dealers to originate, design and install PV systems and energy storage systems for its customers.

### **Financial Conditions and Liquidity**

Sunnova has been a publicly traded company since July 2019. The Company’s stock trades on the New York Stock Exchange under the ticker “NOVA”. The Company has incurred operating losses since inception. However, its adjusted EBITDA turned positive in 2016 and has remained as such since then.

In September and October 2020, Sunnova closed a \$60 million loan facility and increased its warehouse funding capacity by \$162.5 million. As of September 30, 2020, Sunnova had \$127.1 million of restricted cash and \$84.6 million of unrestricted cash.

## Management

KBRA has met with management and believes the team has the knowledge and industry experience manage the Company's operations, underwrite loans in accordance with their credit policy and to service the securitized pool.

### **William J. Berger, Chief Executive Officer:**

Mr. Berger co-founded Sunnova Energy Corporation in November of 2012 and has served as CEO since then. Mr. Berger has more than two decades of experience in the power industry. Prior to Sunnova he co-founded and served as CEO of SunCap Financial, a residential solar lease provider. Prior to this, Mr. Berger co-founded Standard Renewable Energy, a provider of renewable energy and other products for multiple sectors of the market. He received his MBA from Harvard Business School and graduated from Texas A&M University with a B.S. in Civil Engineering.

### **Robert Lane, Chief Financial Officer:**

Mr. Lane joined Sunnova in May 2019 as the Company's CFO. Prior to Sunnova, Mr. Lane was the CFO of Spark Energy, Inc., a publicly traded retail energy services company, from 2016 to 2019. Mr. Lane was also CFO of Emerge Energy Services GP, LLC and a Managing Director at Global Hunter Securities LLC. He received his MBA from the University of Pennsylvania's Wharton School of Business and his B.A. from Princeton University.

### **Michael Grasso, Chief Marketing Officer:**

Mr. Grasso joined Sunnova from Sunrun and TXU Energy where he served as Chief Marketing Officer at both companies. Previously, he was Senior Vice President of brand management with USAA and, prior to that, held multiple executive positions at AT&T. Mr. Grasso earned his Master of Science degree in Telecommunications Management from Washington University and his B.A. in Computer Science and Applied Statistics from St. Mary's University.

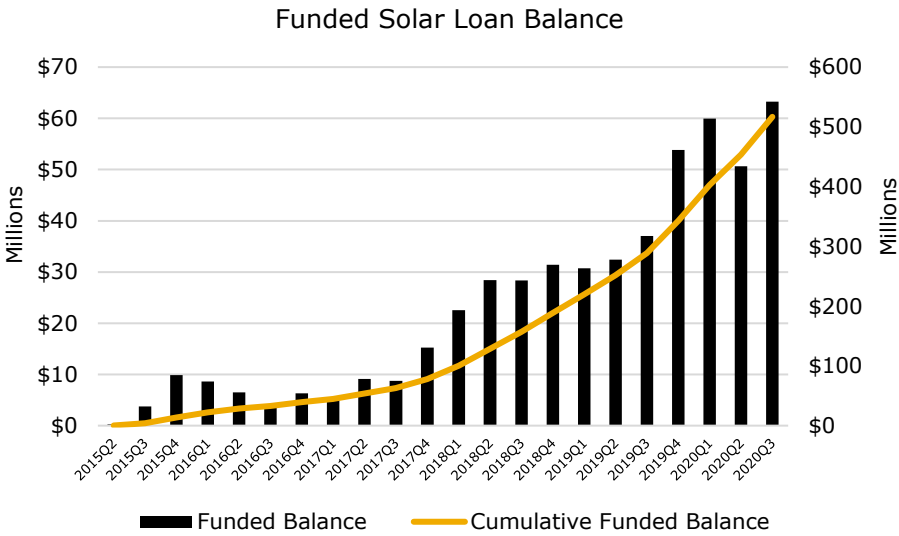
### **Walter A. Baker, General Counsel:**

Mr. Baker serves as the chief legal and compliance officer of the Company. Previously, Mr. Baker was the General Counsel and Corporate Secretary as well as the Chief Compliance Officer of Atwood Oceanics, Inc. Mr. Baker received his J.D. from the University of Texas at Austin and graduated with a B.A. from Vanderbilt University.

## Origination

Sunnova originates solar loans using its network of third-party dealers. The dealers provide consultations to source potential customers in each geographic market that Sunnova targets. The dealers and the customers agree to a Sunnova standard form SSA for the relevant market and submit their SSAs to Sunnova for approval. Sunnova reviews each submitted SSA to confirm that the agreement conforms to Sunnova's form and that the pricing and customer savings requirements conform to Sunnova's standards. Sunnova also reviews each customer's credit application for compliance with its credit standards and confirms that such customer's payment method is valid and authorized. Sunnova verifies that one signatory to the SSA is a title holder of the real property where the PV system will be installed. Sunnova contacts each customer to independently verify the customer identity and relevant information, and that the customer understands certain terms of the submitted SSA. If the foregoing is satisfactory, Sunnova enters into the lease agreement, PPA or solar loan agreement with the customer and issues a work order authorizing the dealer to begin design of the PV system.

The chart below summarizes Sunnova's funded loan amount since the second quarter of 2015.



## Dealer Network

Sunnova leverages a broad network of independent local dealers to identify and source potential customers, install PV systems and service existing customers, to achieve maximum cost efficiency regarding origination, installation, maintenance and repair, including asset services. Sunnova also maintains a direct sales desk for energy storage systems and maintenance services to augment its dealer network's sales.

As of September 30, 2020, Sunnova maintained relationships with over 270 active dealers and sub-dealers. A single dealer - Trinity Solar, Inc. - accounted for approximately 34% of Sunnova's in-service SSAs and 30% of Sunnova's total SSAs. No other dealer accounted for more than 10% of Sunnova Energy's in service or total SSAs.

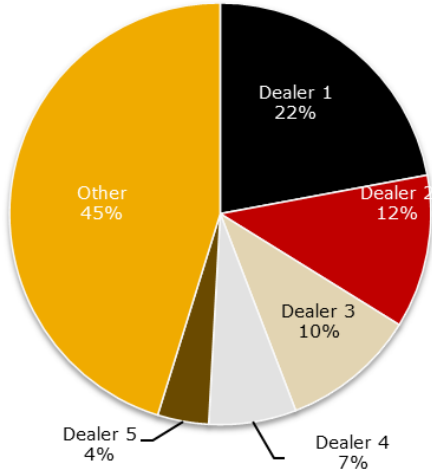
Sunnova's dealers are recruited and managed by Sunnova and must meet and maintain certain standards to be an approved Sunnova dealer. Qualifications to be a dealer include, but are not limited to, experience in the residential solar industry (or success in complementary industries such as home security, HVAC, electrical services, and satellite television), presence of an existing solar-based income, experienced and appropriately certified employees and possession of applicable licenses. Sunnova also performs a qualitative



financial review of prospective dealers as part of its recruitment process, which includes a limited review of such dealer’s financial statements. Upon engagement, the dealer enters into a standard dealer agreement with Sunnova, which may be amended, that sets ongoing standards for operations and payment obligations based on different milestones for each project. Sunnova provides training, field support, and education to help its dealers operate effectively and efficiently. This includes training related to Sunnova's processes, standards and services platform, sales training and compliance education regarding certain applicable rules and regulations. Sunnova actively reviews its dealers' performance to determine whether to maintain its relationship with any dealer that is unable to meet its performance standards.

Below is the dealer mix for the current pool. Infinity Energy Inc. is the largest dealer with approximately 22% of the statistical pool balance.

**Dealers**  
(% of balance as of December 31, 2020 statistical cut-off date)



### Engineering Design, Installation, and Monitoring & Maintenance

According to Sunnova, prior to the dealer’s purchase of and the installation of solar equipment, Sunnova and the dealers work together to design each PV system. All PV systems are designed with equipment models from a pre-approved list of manufacturers. Sunnova utilizes its comprehensive tools and services platform, standardized procedures and existing databases to help its dealers comply with pricing requirements, residential solar best practices, SSA terms, and state, territorial and local regulations. For each SSA, an individualized power production estimate is created by analyzing geographic, solar and weather data with the design's proposed orientation, components, and shading. The dealers are required to give customers an opportunity to review the design and any customer rebates included in the quote. Upon determination by Sunnova that the design satisfies the requirements described above, Sunnova will issue a notice to the related dealer to proceed with the installation of such PV system and will often provide an initial payment to the dealer, which is used to fund the installation and commissioning phase.

The installation and commissioning phase entails a number of simultaneous processes that must occur before obtaining permission to operate and final interconnection and monitoring. First, the dealers are required to obtain all necessary permits for installation of the PV system. Second, the dealers must complete

Sunnova's commissioning process for each PV system, which entails submitting supporting documentation and photographs illustrating the installation of the PV system to Sunnova's engineering team for review. The dealers must also provide Sunnova with confirmation that the customer is satisfied with the installation and that each PV system is installed on the customer's property as identified in the related SSA. Following completion of these steps and Sunnova's approval of the commissioning package, Sunnova considers the PV system substantially complete and typically makes a payment for the system and takes title to the PV system.

Sunnova finalizes interconnection and typically makes its final payment for the purchase of a PV system to the related dealer, at which point the payment obligations to the dealers for the PV system are satisfied. Sunnova provides notice of ownership to each PV system, including the filing of applicable financing statements in the local real property records where such system is located. Sunnova verifies interconnection through active monitoring of production, which is also compared to expected output. At this point, the PV system is placed in service and the customer's monthly billing begins. Sunnova's monitoring system allows it to confirm the continuing operation of the PV and energy storage systems and identify and solve maintenance issues through its dealers, third-party service providers or its personnel.

## Underwriting

Sunnova states that it has developed a standardized protocol and set of policies to qualify potential customers to enter into SSAs. During the SSA origination phase, Sunnova reviews the customer's credit application for compliance with its credit standards and other requirements. Sunnova's underwriting standards emphasize the prospective customer's ability and willingness to pay, as well as the value of the customer's estimated savings under the solar energy service agreement compared to traditional utility rates. Sunnova's underwriting, servicing and collection activities are conducted at its headquarters in Houston, Texas.

Sunnova's assessment of the credit decision is influenced by, among other things, the applicant's credit score as obtained from one or more of the three national credit bureaus. Sunnova's credit underwriting policy requires the initial customer's FICO score to be greater than or equal to 650, and in some circumstances may also require the review of the customer's Experian bankruptcy score and Experian TEC score. FICO scores and such other metrics are based solely on independent third-party information from the credit reporting agencies. As of December 31, 2019, Sunnova's customers had, at the time of signing the initial SSA, an average FICO of approximately 739. In the event that a customer elects to sell his or her home, the customer's SSA may be reassigned to a prospective purchaser pursuant to the transfer policy.

## Loan Products

The Sunnova 2021-A collateral pool includes Easy Own Agreements. According to Sunnova, under the current Easy Own Agreement, the borrower purchases the PV system from a dealer using financing provided by Sunnova. Sunnova purchases the solar loan agreement from the dealer and agrees to operate and maintain the PV system. The borrower repays the amount financed plus a finance charge through monthly payments for a typical term of 25 years.

Under Sunnova's current Easy Own Loan agreement, a borrower pays a fixed flat monthly payment, which is based on the 70% or 74% of the solar loan balance, for the first 18 months. If the borrower makes the ITC Prepayment on or before the ITC payment date, the monthly payments will remain the same. Otherwise, the borrower's monthly payments will increase for the remaining term of the solar loan agreement reflecting an amortization of any remaining portion of the 30% or 26% of the total amount financed plus interest over the remaining monthly payments. The Easy Own Loan does not feature an escalator.

The Easy Own Loan contains a feature where a borrower is not required to make interest payments on the prepaid portion of the solar loan balance equal to the ITC amount, which is 30% or 26% of the total amount

financed for all the loans in this transaction. To the extent the borrower makes a partial or full prepayment on the ITC portion of the solar loan balance on or before the scheduled ITC payment date (typically 18 months from the date on which the PV system receives permission to operate), the amount of accrued but unpaid interest on the prepaid portion of the solar loan balance is waived, and the amount of accrued but unpaid interest associated with the remaining balance of the 30% or 26% ITC portion is capitalized and added to the outstanding solar loan balance.

Sunnova also offers customers the option of a PV System integrated with an energy storage system. Sunnova Energy's "SunSafe Easy Save Agreement{ XE "SunSafe Easy Save Agreement" }" and "SunSafe Easy Own Agreement{ XE "SunSafe Easy Own Agreement" }" are similar to the Easy Own Agreement but include energy storage systems with the PV Systems. Under the SunSafe Agreement, the customer repays the amount financed plus a finance charge through monthly payments for a term of 10 years.

Stratification by Loan Type				
Deal Score	Number of Loans	% of Loans	Current Balance (\$'000)	% of Current Balance
Easy Own Agreement	3,475	65.95%	126,866	69.99%
PV/ESS Solar Loan	1,393	26.44%	49,140	27.11%
ESS Solar Loan	401	7.61%	5,249	2.90%
Total:	5,269	100.00%	181,255	100.00%

**Production Guaranty**

Sunnova guarantees minimum power production under all of the solar loan agreements where permitted by law, meaning that it will compensate the borrower financially if the PV system does not meet minimum production levels (a "Production Guarantee").

Under a Production Guarantee, Sunnova guarantees production output of the system. The guarantor agrees to pay the shortfall between expected production and actual production. If the system generates more output than guaranteed output, the surplus is carried over and used to offset any deficits that may occur in the future. Production Guarantees are typically set at a production level that is less than the level warranted by the system manufacturer. As of December 31, 2020, Sunnova had recorded approximately \$25,837 in refunds or bill credits relating to its production guarantees for the PV systems in the statistical solar loan pool.

**Servicing & Collections**

Sunnova maintains reporting and controls to monitor the timeliness of customer payments. As of September 30, 2020, approximately 92.8% of all the Sunnova SSA payments are collected via ACH, 3.86% are collected via automatic recurring credit card payments, and 3.32% are collected through non-recurring means. The Easy Own Loan agreement contains a discount of \$10 monthly off borrower’s monthly payment if the borrower makes its monthly payment through ACH withdrawal.

If a customer becomes delinquent on one or more monthly installment payments, Sunnova begins the collection process with respect to such customer. The collection process is monitored and performed by Sunnova's operations and revenue management teams:

Days Past Due	Actions
<b>1 thru 30:</b>	<ul style="list-style-type: none"> <li>▪ Customer contact to resolve via manual out bound dialing, email, and use of a predictive dialer to contact the Customer</li> <li>▪ Deferred payment arrangements</li> </ul>
<b>31 thru 60:</b>	<ul style="list-style-type: none"> <li>▪ Customer contact to resolve via manual out bound dialing, email, and use of a predictive dialer to contact the Customer</li> <li>▪ Use of skip tracing via external credit bureau if contact information is no longer valid</li> <li>▪ Deferred payment arrangements</li> <li>▪ Assessment of late and insufficient funds/ unable to draft fees</li> </ul>
<b>61 thru 120:</b>	<ul style="list-style-type: none"> <li>▪ Customer contact to resolve via manual out bound dialing, email, and use of a predictive dialer to contact the Customer</li> <li>▪ Use of skip tracing via external credit bureau if contact information is no longer valid</li> <li>▪ Assessment of late and insufficient funds/ unable to draft fees</li> <li>▪ Deferred payment arrangements</li> <li>▪ Disconnection of solar service</li> <li>▪ Negative reporting to credit bureaus for past due amount</li> </ul>
<b>121 thru 150:</b>	<ul style="list-style-type: none"> <li>▪ Customer contact to resolve via manual out bound dialing, email, and use of a predictive dialer to contact the Customer</li> <li>▪ Use of skip tracing via external credit bureau if contact information is no longer valid</li> <li>▪ Coordination with applicable Channel Partner to initiate contact with the Customer</li> <li>▪ Assessment of late and insufficient funds/ unable to draft fees</li> <li>▪ Deferred payment arrangements</li> <li>▪ Disconnection of solar service</li> <li>▪ Negative reporting to credit bureaus for past due amount</li> <li>▪ Placing the Customer in default and assessing liquidation amount to Customer</li> <li>▪ Further disablement of the PV System</li> <li>▪ Re-price for immediate savings</li> <li>▪ Negative reporting to the credit bureau of the past due amount and liquidated amount for the full PV System amount</li> <li>▪ In Puerto Rico, Rule 60 of the Rules of Civil Procedure for expedited resolution of claims of up to \$15,000 for the past due balance and re-starting the stream of payment for the system</li> </ul>

In order to return to good standing, a delinquent customer must either pay his or her outstanding past due balance in full or, if the outstanding past due balance with respect to such customer is greater than or equal to the monthly payment for one past due period, enter into a payment plan with Sunnova that will allow the customer up to 12 months to become current on his monthly installment payments. Sunnova has the right to suspend or disconnected the solar service if the customer becomes 61 or more days past due.

## Contract Reassignments

Sunnova states that it has the right to remove PV Systems if the customer agreement is cancelled, the new homeowner rejects the reassignment of the solar services agreement upon home transfer, or the cost to remove such photovoltaic system is less than the cost of leaving such PV system in place. The redeployment process of systems is managed by Sunnova Management, a wholly owned direct subsidiary of Sunnova.

Generally, contract reassignments are the result of the customer financial distress (short sale or foreclosure), divorce, death of the customer or sale of the home. To initiate the reassignment process, a customer must notify Sunnova of the pending sale, after which Sunnova will provide a copy of the SSA, including any amendments, to the prospective purchaser. The prospective purchaser will then be required to complete a customer profile and a credit application. Each prospective purchaser's FICO score will be evaluated as that of a customer in a new origination and will be evaluated by Sunnova's computer auto-decisioning system.

Historically, approximately 93% of reassignments were due to normal sales, and 97% of reassignment resolutions were normal transfers.

## Custodial Agent

U.S. Bank as the custodial agent will take custody of copies of the solar loan files, which include

- (i) either (a) for solar loan agreements not held in an electronic vault, a PDF copy of the related solar loan agreement executed by a borrower, including any amendments, or (b) the single authoritative copy of an electronic solar loan agreement executed by a borrower that identifies the custodian as assignee, including any amendments.
- (ii) regulatory disclosure statements, including "truth in lending," "Graham-Leach-Bliley" and "ECOA and FCRA" disclosures, if any,
- (iii) a fully executed copy of the related Production Guaranty and/or Customer Warranty Agreement, if any,
- (iv) an executed electronic copy of the related Interconnection Agreement
- (v) an executed copy of the related Net Metering Agreement, if separate from the Interconnection Agreement,
- (vi) documents evidencing Permits to operate the related PV System, if any,
- (vii) an executed copy of the related amendments to Solar Loan Agreements, if any,
- (viii) all customer information with respect to ACH payments, if any, and
- (ix) any other documents the Manager routinely keeps on file, in accordance with its customary procedures, relating to such Solar Loan or the related Obligor.

## Legal and Compliance

Sunnova is regulated by CFPB, FTC and various state agencies. Loans originated by Sunnova must comply with applicable federal and state law including (but not limited to):

- Truth in Lending Act ("TILA")
- Fair Credit Reporting Act ("FCRA")
- Equal Credit Opportunity Act ("ECOA")

Sunnova's General Counsel oversees the Company's legal department. Sunnova's legal department works with outside legal resources to perform legal analysis on each state, supervises license application submissions and disclosure of changes to loan agreements and/or disclosure requirements.

## Collateral Analysis

The collateral composition for the Sunnova 2021-A transaction is as of the December 31, 2020 statistical loan pool.

The table below summarizes the terms of the Solar Loan portfolio segmented by loan type. Additional information on each loan type is summarized in the [Loan Product](#) section of this report.

Stratification by Loan Type				
Deal Score	Number of Loans	% of Loans	Current Balance (\$'000)	% of Current Balance
Easy Own Agreement	3,475	65.95%	126,866	69.99%
PV/ESS Solar Loan	1,393	26.44%	49,140	27.11%
ESS Solar Loan	401	7.61%	5,249	2.90%
Total:	5,269	100.00%	181,255	100.00%

About 81% of the borrowers in the statistical pool choose to use ACH as the loan payment method. If the borrower elects to use make payments through ACH withdrawal, Sunnova discounts the monthly payment by \$10 for each Easy Own Loan.

Stratification by Payment Type				
Deal Score	Number of Loans	% of Loans	Current Balance (\$'000)	% of Current Balance
ACH Payment Method	4,327	82.12%	146,089	80.60%
Non ACH Payment Method	942	17.88%	35,166	19.40%
Total:	5,269	100.00%	181,255	100.00%

The Sunnova 2021-A pool consists of loans made to mostly prime borrowers. The weighted average FICO score is 733.

Stratification by FICO				
FICO	Number of Loans	% of Loans	Current Balance (\$'000)	% of Current Balance
650 to 660	315	5.98%	12,287	6.78%
661 to 680	606	11.50%	22,463	12.39%
681 to 700	603	11.44%	21,680	11.96%
701 to 720	600	11.39%	21,267	11.73%
721 to 740	609	11.56%	21,197	11.69%
741 to 760	650	12.34%	21,628	11.93%
761 to 780	672	12.75%	22,823	12.59%
781 to 800	596	11.31%	19,061	10.52%
801 to 820	446	8.46%	13,711	7.56%
821 to 840	171	3.25%	5,110	2.82%
841 >=	1	0.02%	29	0.02%
Total:	5,269	100.00%	181,255	100.00%

Approximately 71% of the portfolio consists of loans with a current balance less than \$50,000.

Stratification by Current Loan Balance				
Current Loan Balance	Number of Loans	% of Loans	Current Balance (\$'000)	% of Current Balance
<= 9,999	122	2.32%	1,037	0.57%
\$10,000 to \$19,999	704	13.36%	10,453	5.77%
\$20,000 to \$29,999	1,617	30.69%	40,648	22.43%
\$30,000 to \$39,999	1,304	24.75%	45,202	24.94%
\$40,000 to \$49,999	724	13.74%	32,069	17.69%
>= 50,000	798	15.15%	51,846	28.60%
Total:	5,269	100.00%	181,255	100.00%

Sunnova's top three dealers represent 44.2% of the aggregate solar loan balance. Each of the other dealers compose of less than 6.8% of the pool.

Stratification by Top 10 Dealer				
Dealer	Number of Loans	% of Loans	Current Balance (\$'000)	% of Current Balance
Dealer 1	1,026	19.47%	39,998	22.07%
Dealer 2	710	13.48%	21,326	11.77%
Dealer 3	643	12.20%	18,725	10.33%
Dealer 4	318	6.04%	12,164	6.71%
Dealer 5	267	5.07%	7,115	3.93%
Dealer 6	160	3.04%	5,748	3.17%
Dealer 7	123	2.33%	4,953	2.73%
Dealer 8	121	2.30%	4,119	2.27%
Dealer 9	112	2.13%	3,900	2.15%
Dealer 10	88	1.67%	3,891	2.15%
Other	1,701	32.28%	59,315	32.72%
<b>Total:</b>	<b>5,269</b>	<b>100.00%</b>	<b>181,255</b>	<b>100.00%</b>

The pool is heavily concentrated in California (38.5%) and Puerto Rico (21%).

Stratification by State				
Borrower State	Number of Loans	% of Loans	Current Balance (\$'000)	% of Current Balance
California	1,917	36.38%	69,782	38.50%
Puerto Rico	1,432	27.18%	38,012	20.97%
Texas	338	6.41%	15,842	8.74%
New Jersey	381	7.23%	13,299	7.34%
Massachusetts	225	4.27%	7,477	4.13%
Arizona	169	3.21%	7,159	3.95%
New York	197	3.74%	6,395	3.53%
Florida	138	2.62%	5,225	2.88%
Nevada	123	2.33%	4,557	2.51%
Maryland	114	2.16%	4,120	2.27%
Hawaii	59	1.12%	3,769	2.08%
Pennsylvania	86	1.63%	3,014	1.66%
Connecticut	28	0.53%	971	0.54%
Rhode Island	37	0.70%	868	0.48%
South Carolina	19	0.36%	589	0.33%
New Mexico	4	0.08%	96	0.05%
Illinois	1	0.02%	43	0.02%
Colorado	1	0.02%	37	0.02%
<b>Total:</b>	<b>5,269</b>	<b>100.00%</b>	<b>181,255</b>	<b>100.00%</b>

## KBRA Comparative Analytic Tool (KCAT)

The chart below compares the pool characteristics and structure of the Sunnova 2021-A transaction against the prior Loanpal, Mosaic, Dividend, and securitizations.

Deal name	Sunnova 2021-A	LPSLT 2021-1	Solar Mosaic 2020-2	Sunnova 2020-A	Dividend 2019-1
Transaction Date	2/16/2021*	1/7/2021	6/25/2020	6/19/2020	7/11/2019
Collateral Stratification					
Current Pool Balance	\$181,254,889	\$474,288,715	\$230,648,910	\$181,133,916	\$252,514,599
Number of Loans	5,269	14,364	3,754	5,601	8,750
Avg Current Loan Balance	\$34,400	\$33,019	\$34,226	\$32,340	\$28,859
W.A Avg Coupon	3.94%	3.61%	4.40%	5.28%	5.32%
Wtd Avg FICO	733	742	755	735	751
Wtd Avg Original Term (months)	295	268	215	296	221
Wtd Avg Remaining Term (months)	290	258	211	291	215
FICO Distribution					
650-660	6.78%	600-649: 3.02%	640-660: 3.94%	6.13%	640-660: 0.49%
661-680	12.39%	650-699: 20.78%	8.31%	11.68%	7.73%
681-700	11.96%	700-749: 32.91%	7.39%	11.64%	11.94%
701-720	11.73%	750-799: 23.95%	10.39%	11.41%	12.64%
721-740	11.69%	800+: 19.91%	11.13%	11.57%	11.82%
741-760	11.93%	--	10.85%	12.34%	10.94%
761-780	12.59%	--	11.15%	12.88%	11.75%
781-800	10.52%	--	11.55%	12.23%	11.93%
801-820	7.56%	--	11.02%	7.49%	11.94%
821-840	2.82%	--	9.30%	2.53%	7.48%
841 & higher	0.02%	--	4.99%	0.11%	1.33%
Geographic Concentration					
State 1	CA: 38.50%	TX: 21.97%	CA: 37.55%	CA: 32.29%	FL: 20.10%
State 2	PR: 20.97%	CA: 17.01%	FL: 16.29%	NJ: 20.01%	CA: 19.84%
State 3	TX: 8.74%	AZ: 10.21%	TX: 10.66%	PR: 16.97%	TX: 17.71%
% Credit Enhancement					
Initial OC	9.50%	9.39%	3.75%	12.50%	7.10%
Target OC	10.00%**	N/A	16.45%***	13.00%**	7.10%
Initial Reserve	1.00%	1.00%	1.00%	1.00%	1.00%
YSOC	N/A	4.00%	N/A	N/A	N/A
Excess Spread Summary					
Collateral APR	3.94%	4.21%	4.40%	5.28%	5.32%
WA Bond Coupon	2.07%	2.46%	1.94%	3.56%	3.80%
Servicing and Other Fees	0.58%	0.35%	0.55%	0.58%	0.46%
Annual Excess Spread	1.29%	1.40%	1.91%	1.14%	1.06%
% Total Initial Credit Enhancement ****					
AA- (sf) Class	--	--	54.66%	--	--
A (sf) Class	--	24.89%	--	--	--
A- (sf) Class	29.00%	--	13.96%	27.21%	16.71%
BBB (sf) Class	--	17.45%	--	--	13.25%
BBB- (sf) Class	--	--	9.81%	--	--
BB (sf) Class	--	10.29%	--	--	8.10%
BB- (sf) Class	10.50%	--	4.96%	14.71%	--
KBRA Base Case CNL					
KBRA Base Case Loss Range	9.80% - 11.80%	7.95% - 9.95%	5.30% - 7.30%	9.25% - 11.25%	5.80% - 7.80%

Source: KBRA, transaction documents.

\*Collateral stratification as of 12/31/2020

\*\*Percentage of the aggregate Closing Date Solar Loan Balance

\*\*\* For Class A and B Notes, initially at 12.75%; as a % of Pool Balance

\*\*\*\* For Sunnova 2021-A, includes overcollateralization and the Reserve Account, and excludes the Capitalized Interest and Section 25D Interest Accounts

To download the KCAT, please click [here](#).



**KBRA Loss Expectation**

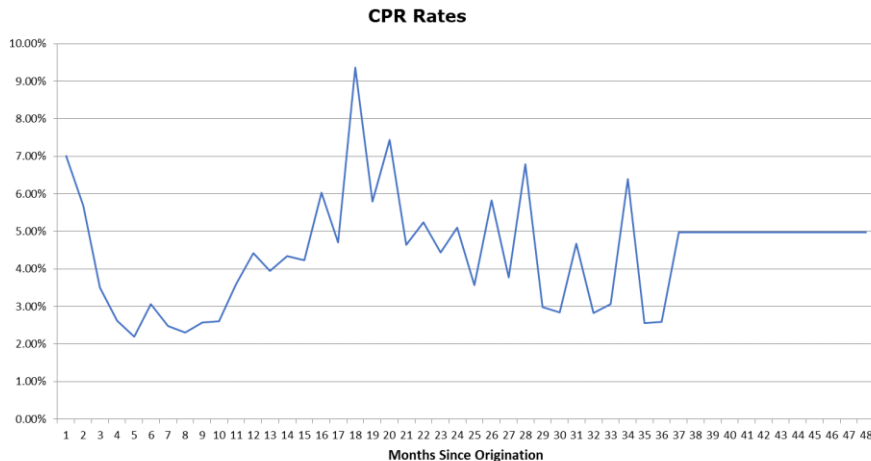
Sunnova began originating solar loans in 2Q15 and therefore provided KBRA with no more than five years of performance data on loans that mostly have a 25-year original term. These loans have not been through a full loan life cycle and therefore losses could be higher than experience to date suggests. As a result, KBRA performed the following analysis in order to develop a base case loss expectation per [KBRA’s Global General Rating Methodology for Asset-Backed Securities](#).

To account for the limited data:

- Sunnova commissioned a major credit bureau to conduct a proprietary study of “home related” unsecured consumer loans for loans that closely resemble residential solar project loans. KBRA used this gross default data, in combination with Sunnova’s managed portfolio performance data, to derive loss timing curves and gross default assumptions by FICO and loan term cohort, and compared these results with other consumer loan defaults for borrowers with similar credit quality. KBRA treated the loans as unsecured loans even though they are secured by the solar systems and UCC1 filings and Sunnova underwrites the solar loan so that it results in monthly electrical savings compared to only purchasing energy from the grid.
- KBRA added additional losses based on the production guarantee percentages. In these scenarios, the systems are expected to produce energy below the guaranteed amount and the guarantors are assumed to breach their payment obligation, which results in selective borrower defaults.

**Prepayment Rates**

KBRA reviewed Sunnova’s historical prepayment data to determine the CPR rates. CPR assumptions are higher in the few months before the ITC payment date due primarily to the incentive provided by Sunnova to borrowers for making the ITC Prepayment.



## Cash Flow Modeling

KBRA performed cash flow analysis on the Sunnova 2021-A transaction to determine whether the proposed enhancement levels are sufficient to warrant the requested ratings for each of the rated Notes. KBRA's cash flow stresses included the following assumptions:

Cash Flow Modeling Inputs	
Item	Input
Weighted Average CGL	11.58%
Recovery Rate	7.00%
Voluntary ABS Prepay Speed	Variable <sup>(1)</sup>
Base Case Loss Timing Curve	Variable <sup>(2)</sup>

(1) Ranged from 2-10% based on historical data

(2) Separate curved depending on loan term and borrower quality

KBRA's base case cumulative net loss range for Sunnova 2021-A is 9.80% to 11.80% with a midpoint of 10.8%. Under these assumptions, the cash flow stresses resulted in the following coverage levels of the base case cumulative net loss assumption:

Cash Flow Modeling Results				
Class	KBRA Rating	Breakeven CGL	Breakeven CNL	Breakeven CNL Multiple
Class A	A- (sf)	38.51%	35.81%	3.33x
Class B	BB- (sf)	19.65%	18.28%	1.70x

While these multiples are below those of other solar loan transactions that KBRA has rated, other qualitative factors were considered when assigning the ratings. For example, KBRA considers it a credit positive that Sunnova is performing the operations and maintenance responsibilities for its borrowers and is paid its management fee through the priority of payments. This compares favorably to structures where O&M fees are paid by the borrower or outside the structure to an unrated third-party. KBRA believes O&M improves the borrower's experience and the system production, however benefit is given when the management fee is included in the proposed structure. The O&M fee in the transaction was stressed at various levels, which resulted in the multiples being lower if not otherwise stressed.

## Rating Sensitivity Analysis

The ratings assigned to this transaction will be monitored through the life of the transaction. If performance of the transaction, including losses, differs meaningfully from the expected levels, KBRA may consider making a rating change.

The table below illustrates the potential for downgrade of each rated class if the expected cumulative net loss levels exceed initial expectations based upon the leverage in the transaction currently. 'Stable' means a downgrade is unlikely. 'Moderate' means a potential downgrade of up to one rating category is possible. 'Severe' indicates a multi-category downgrade is possible.

In addition to providing insight into the risk of rating migration, the table also indicates which scenarios may cause particular classes to default. Any scenario that indicates 'Default' for a class means that our cash flow projection indicated a default in the payment of principal under that scenario.

		Class and Rating Sensitivity	
CNL Increase	Resulting CNL	Class A	Class B
Current Base Case CNL	10.77%	Stable	Stable
10%	11.85%	Stable	Stable
20%	12.92%	Stable	Moderate
30%	14.00%	Moderate	Moderate
40%	15.08%	Moderate	Severe
50%	16.16%	Severe	Severe
60%	17.23%	Severe	Severe
70%	18.31%	Severe	Default

It should be noted that many factors, including economic stress, market conditions and servicing operations can impact the performance of the loan pool and influence rating decisions, both positively and negatively. To the degree that the pool performance meets or exceeds expectations for an extended period, rating stability can improve over time. Conversely, the emergence of compelling evidence that the pool will likely underperform could warrant significant rating action. If there is the need for any change in the rating of any class of notes, KBRA will provide the rationale for such change in rating.

## **ESG Considerations**

KBRA ratings incorporate relevant credit factors, including those that relate to Environmental Social Governance (ESG). The following section highlights ESG considerations that are generally associated with ABS securitizations such as the subject transaction.

### **Environmental Factors**



#### **Geographic Concentration**

High state concentration leaves the collateral pool susceptible to adverse economic conditions, regional recessions and natural disasters which may negatively affect loan performance or collections. Certain states are vulnerable to natural disasters such as earthquakes, wildfires, and hurricanes. The occurrence of such an event may cause increased voluntary or involuntary delinquencies for loans in the transaction. The collateral pool as of the statistical cutoff is geographically diverse as described under [Geographic Concentration](#) in the Key Credit Considerations section.

### **Social Factors**



#### **Demographic Trends**

Demographic trends drive consumer preferences and the overall direction of the economy, which influences the demand for products and performance of financial assets. Changes in demographic trends and consumer preferences impact the long-term viability of the product and Company. KBRA considers changes in demographic trends, consumer preferences and the long-term viability of the product and Company in its rating assessment. Products with low customer satisfaction, that are inefficient or have not embraced technological developments have a greater likelihood of being disintermediated or replaced by newer products that address these factors. Demand for financial products are also affected by population growth and consumers' age, demographic changes, employment rates, consumer behavior and other secular trends. Further discussion can be found under [Solar Loans Result in Savings on Utility Bills](#) in the Key Credit Considerations section.

### **Governance Factors**



#### **Experience of Management, Historical Performance**

KBRA believes Sunnova's management team has the knowledge and industry experience manage the company's operations, underwrite loans in accordance with their credit policy and to service the securitized pool. This is discussed in the [Management](#) section.

Historical performance data, which includes defaults, recoveries and prepayments, are important considerations used to predict future performance of the underlying assets. Sunnova has limited operating history for its originations, servicing and underwriting criteria used to originate the solar loans held as collateral in this securitization. Further discussion can be found under [Limited Performance Data](#) in the Key Credit Considerations section.

#### **Loan Servicing and Collections**

Sunnova is a capable originator/aggregator and servicer of residential solar leases, PPAs, and solar loans. The Company began operating in the residential solar market in January 2013 and has developed a broad network of over 270 active dealers and sub-dealers to deliver renewable energy to more than 98,000 homeowners across more than 20 U.S. states and territories. A summary of the company's servicing and collection efforts can be found in the [Servicing & Collections](#) section.

#### **Transaction Structure**

Transaction structure is an important governance factor in structured finance transactions as many structural aspects, such as adherence to representations and warranties, compliance with origination standards and eligibility criteria, reporting of collateral performance, and segregation and application of cashflows, require parties to act in good faith and certify the accuracy of such information. Failure to do

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so could impact actual performance and KBRA's ratings. KBRA considers various aspects of the transaction structure in its analysis, including, but not limited to, the bankruptcy remoteness of collateral, perfection of collateral security interests, how loans are underwritten and serviced, and the transaction waterfall, as well as the operative documents and key parties involved in effectuating transaction functions. KBRA holistically considers these structural features, credit enhancement, transaction documents, and the capabilities of key parties during the course of our credit analysis and ratings assignment process. A summary of the transaction's structure can be found in the [Transaction Structure](#) section.

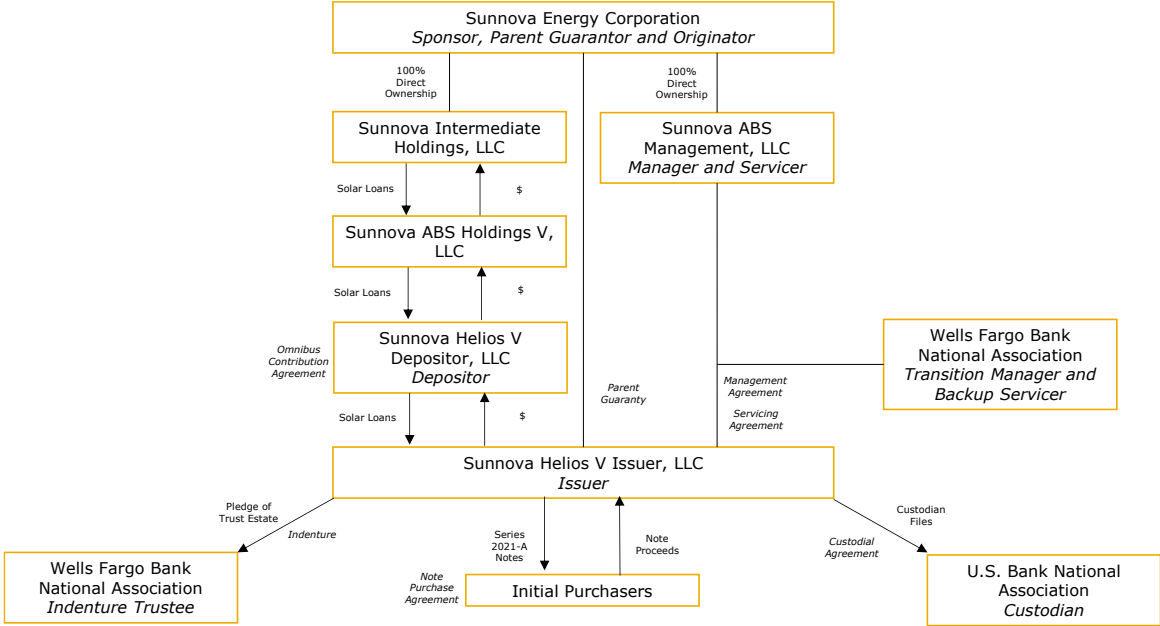
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# Transaction Structure

Please note that the following is intended to be a concise summary of the transaction structure. It does not contain all the information that may be relevant to understanding the transaction’s mechanics, which are available in the offering materials and/or transaction documents.

## Legal Structure

**Transaction Structure** The following diagram illustrates the basic structure for Sunnova 2021-A:



**Rated Final Maturity** February 20, 2048

**Anticipated Repayment Date** The Payment Date in February 2028

**Available Funds** As of any Monthly Payment Date, the sum of the following:

- (a) all collections with respect to the Solar Loans (including net recoveries on Defaulted Solar Loans not repurchased and Insurance Proceeds received) deposited in or transferred to the Collection Account with respect to the related Collection Period;
- (b) all amounts received from the Depositor upon its repurchase of Solar Loans during or with respect to the related Collection Period or from the Performance Guarantor pursuant to the Performance Guaranty to the extent deposited in the Collection Account;
- (c) all amounts received as investment earnings on balances in the Collection Account, the Reserve Account, the Prefunding Account, the Capitalized Interest Account, the Equipment Replacement Reserve Account and the Section 25D Interest Account during the related Collection Period;
- (d) amounts transferred to the Collection Account from the Reserve Account, the Prefunding Account, the Capitalized Interest Account, the Equipment

	<p>Replacement Reserve Account, the Section 25D Interest Account or the Obligor Security Deposit Account;</p> <p>(e) if a Voluntary Prepayment Date is the same date as a Payment Date, amounts received in connection with a Voluntary Prepayment, in each case on deposit in the Collection Account; and</p> <p>(f) any Permitted Equity Cure Amount.</p>
<p>Priority of Payments</p> <p>(Prior to an Event of Default)</p>	<p>On each payment date, Available Funds will be distributed to pay the following amounts in the following order:</p> <ul style="list-style-type: none"> <li>(i) Indenture Trustee Fees, Backup Servicer and Transition Manager Fees,;</li> <li>(ii) Manager Fees and Servicing Fees, pari passu;</li> <li>(iii) Custodian Fees;</li> <li>(iv) Interest on Class A Notes;</li> <li>(v) Interest on Class B Notes;</li> <li>(vi) Manager expenses on replacing any inverters to the extent these expenses are not reimbursed from the Inverter Replacement Reserve Account;</li> <li>(vii) To the Equipment Replacement Reserve Account, the Equipment Replacement Reserve Deposit;</li> <li>(viii) To pay: <ul style="list-style-type: none"> <li>(a) During a Regular Amortization Period in the following order: <ul style="list-style-type: none"> <li>(1) Deferred Interest on the Class A Notes;</li> <li>(2) Deferred Interest on the Class B Notes;</li> <li>(3) Principal Distribution Amount to the Class A and B Notes pro rata.</li> </ul> </li> <li>(b) During a Sequential Amortization Period or any payment date after the Anticipated Repayment Date: <ul style="list-style-type: none"> <li>(1) Deferred Interest on Class A Notes until reduced to zero;</li> <li>(2) To reduce principal balance of Class A Notes until reduced to zero;</li> <li>(3) Deferred Interest on Class B Notes until reduced to zero;</li> <li>(4) To reduce principal balance of Class B Notes until reduced to zero.</li> </ul> </li> </ul> </li> <li>(ix) During a Regular Amortization Period, the Extra Principal Distribution Amount (A) to the Class B Noteholders until the Outstanding Note Balance of the Class B Notes is reduced to zero, and (B) to the Class A Noteholders until the Outstanding Note Balance of the Class A Notes is reduced to zero;</li> <li>(x) Any amount to the Reserve Account necessary to increase the balance to the Reserve Account Required Balance;</li> <li>(xi) To the Class A and B Notes, in that order, reimbursement of any unreimbursed Note Balance Write-Down Amounts applied on prior Payment Dates;</li> <li>(xii) Unpaid fees to the Indenture Trustee, Backup Servicer, and Transition Manager pro rata;</li> <li>(xiii) Unpaid fees to the Custodian;</li> <li>(xiv) On a pari passu basis, (A) to the Manager, any Manager Extraordinary Expenses not previously paid and (B) to the Servicer, any Servicer Extraordinary Expenses not previously paid;</li> <li>(xv) First to the Class A Noteholders and second to the Class B Noteholders, their respective Make Whole Amount, if any;</li> </ul>

	<ul style="list-style-type: none"> <li>(xvi) first to the Class A Noteholders and second to the Class B Noteholders, their respective Post-ARD Additional Interest Amounts and Deferred Post-ARD Additional Interest Amounts due on such Payment Date, if any;</li> <li>(xvii) to the Class A Noteholders and Class B Noteholders, any Voluntary Prepayment, as applicable;</li> <li>(xviii) to the Eligible Letter of Credit Bank or other party as directed by the Manager (a) any fees and expenses related to the Letter of Credit and (b) any amounts which have been drawn under the Letter of Credit and any interest due thereon; and</li> <li>(xix) To the Issuer, any remaining Available Funds.</li> </ul>
<p>Sequential Interest Amortization period</p>	<p>A Sequential Interest Amortization Period will occur if:</p> <ul style="list-style-type: none"> <li>(a) as a condition to accepting its appointment as a Replacement Manager, such Replacement Manager requires an increase of at least 25% to the existing O&amp;M Fee Base Rate to perform the related duties or</li> <li>(b) as a condition to accepting its appointment as a Replacement Servicer, such Replacement Servicer (other than the Backup Servicer) requires an increase of at least 25% to the existing Administrative Fee Base Rate to perform the related duties or</li> <li>(c) a Sequential Amortization Event of the type described in clause (c) of the definition thereof has continued for 18 consecutive Payment Dates.</li> </ul> <p>A Sequential Interest Amortization Period of the type described in (a) and (b) above shall continue until the next Determination Date on which the then existing O&amp;M Fee Base Rate or Administrative Fee Base Rate, as applicable, is no longer 25% greater than the O&amp;M Fee Base Rate or 25% greater than the Administrative Fee Base Rate on the Closing Date. A Sequential Interest Amortization Period of the type described in clause (c) above will continue until the amount of Available Funds remaining after distributions of amounts pursuant to Cumulative Default Level clauses (i) through (vii) of the Priority of Payments is greater than 100% of the Principal Distribution Amount for the related Payment Date (determined assuming a Regular Amortization Period) for six consecutive Payment Dates.</p>
<p>Sequential Amortization Event</p>	<p>Following a Sequential Amortization Event, all remaining Available Funds will be used to pay down the notes in sequential order according to the priority of payments.</p> <p>A "Sequential Amortization Event" shall exist if, on any Determination Date,</p> <ul style="list-style-type: none"> <li>(a) (i) a Manager Termination Event, (ii) Servicer Termination Event or (iii) an Event of Default has occurred</li> <li>(b) Sequential Interest Amortization Period exists</li> <li>(c) occurring on or after September 2021, for each of the three immediately preceding Payment Dates, the amount of Available Funds remaining after distributions of amounts pursuant to clauses (i) through (vii) of the Priority of Payments is less than 75% of the Principal Distribution Amount for the related Payment Date (determined assuming a Regular Amortization Period) or</li> <li>(d) the Cumulative Default Level as of the last day of any Collection Period specified below exceeds the corresponding level specified below:</li> </ul>



Collection Period	Cumulative Default Level
1 - 12	6.00%
13 - 24	9.00%
25 - 36	12.00%
37 - 48	15.00%
49 and thereafter	17.00%

A Sequential Amortization Event of the type described in clauses (a)(i) or (a)(ii) above will continue until the Notes (including Deferred Interest Amounts, Post-ARD Additional Interest Amounts and Deferred Post-ARD Additional Interest Amounts) have been paid in full. A Sequential Amortization Event of the type described in clause (a)(iii) above will continue until the Payment Date on which the relevant Event of Default is no longer continuing. A Sequential Amortization Event of the type described in clause (b) above will continue until a Sequential Interest Amortization Period no longer exists. A Sequential Amortization Event of the type described in clause (c) above will continue until the amount of Available Funds remaining after distributions of amounts pursuant to clauses (i) through (vii) of the Priority of Payments is equal to or greater than 75% of the Principal Distribution Amount for the related Payment Date (determined assuming a Regular Amortization Period) for three consecutive Payment Dates. A Sequential Amortization Event of the type described in clause (d) above will continue until the Cumulative Default Level as of the last day of any Collection Period specified above no longer exceeds the corresponding level specified.

**Subsequent Solar Loans**

The Indenture and the Contribution Agreement permit the Issuer to use all or a portion of the amounts on deposit in the Prefunding Account to acquire Subsequent Solar Loans from the Depositor. Some of the criteria for each Subsequent Solar Loan include:

- (i) does not cause the percentage concentration of all Subsequent Solar Loans in any one state or territory to exceed 35.00%;
- (ii) does not cause the percentage concentration of all Subsequent Solar Loans in Puerto Rico to exceed 21.00%;
- (iii) does not cause the weighted average Solar Loan Balance of all Subsequent Solar Loans to be greater than \$37,000;
- (iv) does not cause weighted average FICO of the Obligor of all Subsequent Solar Loans to be less than 730;
- (v) does not cause the percentage concentration of all Subsequent Solar Loans with Obligor that have FICO scores of 680 or less to exceed 20.00%;
- (vi) does not cause the percentage concentration of all Subsequent Solar Loans with Obligor that have FICO scores from and including 681 to and including 720 to exceed 25.00%; and
- (vii) does not cause the percentage concentration of all Subsequent Solar Loans without Production Guaranties to be less than 25.00%.

**Extra Principal Distribution Amount**

on any Payment Date is equal to the lesser of (i) the amount by which Available Funds exceed the amount required to be distributed on such Payment Date pursuant to clauses (i) through (viii) of the Priority of Payments and (ii) the Overcollateralization Deficiency Amount on such Payment Date

**Overcollateralization Deficiency Amount**

on any Payment Date, is the excess, if any, of (i) the Required Overcollateralization Amount on such Payment Date over (ii) the Pro Forma Overcollateralization Amount on such Payment Date, which in no event shall be less than zero

<p>Required Overcollateralization Amount</p>	<p>on any Payment Date, an amount equal to:</p> <ul style="list-style-type: none"> <li>(a) during a Regular Amortization Period, the product of (x) the Target Overcollateralization Percentage and (y) the Aggregate Closing Date Solar Loan Balance; and</li> <li>(b) (b) during a Sequential Amortization Period, an amount equal to the Aggregate Outstanding Note Balance plus unreimbursed Note Balance Write-Down Amounts, if any</li> </ul>
<p>Servicer Termination Event</p>	<p>The occurrence of any of the following events will constitute a "Servicer Termination Event" under the Servicing Agreement:</p> <ul style="list-style-type: none"> <li>(i) failure by the Servicer to deposit to the Lockbox Account, the Collection Account, the Reserve Account, the Equipment Replacement Reserve Account, the Prefunding Account, the Capitalized Interest Account or the Section 25D Interest Account any amount required to be deposited or delivered therein or any proceeds or payment required to be so delivered under the terms of the Servicing Agreement that continues unremedied for three Business Days after such deposit, delivery or payment is required to be made by the Servicer;</li> <li>(ii) failure by the Servicer to deliver to the Indenture Trustee the Monthly Servicer Report within five Business Days of when it is required to be delivered;</li> <li>(iii) failure by the Servicer to observe or perform in any material respect any covenant or agreement of the Servicer contained in the Transaction Documents which failure continues unremedied beyond any applicable cure periods and has a material adverse effect on the Noteholders;</li> <li>(iv) certain events of bankruptcy, insolvency, receivership or reorganization of the Servicer;</li> <li>(v) any representation, warranty or statement of the Servicer made in any Transaction Document to which it is party, or any certificate, report or other writing delivered pursuant thereto, shall prove to be incorrect in any material respect as of the time when the same shall have been made resulting in a material adverse effect on the Noteholders, and the incorrectness of such representation, warranty or statement has a material adverse effect on the Trust Estate or the Noteholders, subject to certain cure periods set forth in the Servicing Agreement;</li> <li>(vi) the Servicer ceases to be primarily engaged in the general type of business activities which it is engaged in on the Closing Date; and</li> <li>(vii) if Sunnova Management is the Servicer, an Event of Default shall have occurred and shall have not been waived.</li> </ul>
<p>Manager Termination Event</p>	<p>The occurrence of any of the following events will constitute a "Manager Termination Event" under the Management Agreement:</p> <ul style="list-style-type: none"> <li>(i) failure by the Manager to deliver to the Servicer the Monthly Manager Report within five Business Days of when it is required to be delivered;</li> <li>(ii) failure by the Manager to observe or perform in any material respect any covenant or agreement of the Manager contained in the Transaction Documents which failure continues unremedied beyond any applicable cure periods and has a material adverse effect on the Noteholders;</li> <li>(iii) certain events of bankruptcy, insolvency, receivership or reorganization of the Manager;</li> </ul>

	<ul style="list-style-type: none"> <li>(iv) any representation, warranty or statement of the Manager made in any Transaction Document to which it is party, or any certificate, report or other writing delivered pursuant thereto, shall prove to be incorrect in any material respect as of the time when the same shall have been made resulting in a material adverse effect on the Noteholders, and the incorrectness of such representation, warranty or statement has a material adverse effect on the Trust Estate or the Noteholders, subject to certain cure periods set forth in the Management Agreement;</li> <li>(v) the Manager ceases to be engaged in the business of monitoring or maintaining PV Systems and Energy Storage Systems; and</li> <li>(vi) if Sunnova Management is the Manager, an Event of Default shall have occurred and shall have not been waived.</li> </ul>
<p>Events of Default</p>	<p>The occurrence of any of the following events shall constitute an Event of Default under the Indenture:</p> <ul style="list-style-type: none"> <li>(i) a default in the payment of any Interest Distribution Amount (which, for the avoidance of doubt, does not include any Deferred Interest Amounts, Post-ARD Additional Interest Amounts or Deferred Post-ARD Additional Interest Amounts) on a Payment Date, which default shall not have been cured after three Business Days;</li> <li>(ii) a default in the payment of the Aggregate Outstanding Note Balance and any unreimbursed Note Balance Write Down Amounts at the Rated Final Maturity;</li> <li>(iii) any of several actions relating to the insolvency of the Issuer shall have occurred, including the appointment of a conservator or receiver or liquidator relating to the Issuer or all or substantially all of the property of the Issuer which is consented to or remains in effect;</li> <li>(iv) a default occurs in the observance or performance in any material respect of certain covenants or obligations of the Issuer, which default shall not have been cured within the applicable cure period;</li> <li>(v) any representation, warranty or statement of the Issuer (other than representations and warranties with respect to the eligibility of a Solar Loan) shall prove to have been incorrect in any material respect as of the time when the same shall have been made and such inaccuracy shall not have been cured within the applicable cure period;</li> <li>(vi) the failure for any reason of the Indenture Trustee, on behalf of the Noteholders, to have a first priority perfected security interest in the Trust Estate in favor of the Indenture Trustee (subject to Permitted Liens) which is not stayed, released or otherwise cured within ten days of receipt of notice or the Servicer's, the Manager's or the Issuer's knowledge thereof;</li> <li>(vii) the Issuer becomes subject to registration as an "investment company" under the Investment Company Act of 1940, as amended, including the rules and regulations thereunder (the "1940 Act");</li> <li>(viii) the Issuer becomes classified as an association, a publicly traded partnership or a taxable mortgage pool that, in each case, is taxable as a corporation for U.S. federal or state income tax purposes;</li> <li>(ix) failure by Sunnova ABS Holdings V or the Depositor to cure, repurchase or replace a Defective Solar Loan in accordance with the Contribution Agreement (except to the extent cured by the Performance Guarantor in accordance with the Performance Guaranty);</li> <li>(x) any default in the payment of any amount due by the Performance Guarantor under the Performance Guaranty;</li> <li>(xi) any failure of the Performance Guarantor to observe or perform any covenant or obligation of the Performance Guarantor set forth in the</li> </ul>

(xii) Performance Guaranty (other than failure to make any required payment), which has not been cured within 30 days from the earlier of (x) knowledge by the Performance Guarantor of such failure to perform and (y) the date of receipt by the Performance Guarantor of written notice from the Indenture Trustee of such failure to perform; or there shall remain in force, undischarged, unsatisfied, and unstayed for more than 30 consecutive days, any final non-appealable judgment in the amount of \$100,000 or more against the Issuer not covered by insurance or bond.

**Credit Enhancement**

The credit enhancement provides protection for the notes against losses and delays in payment on the receivables or other shortfalls of cash flow. The credit enhancement for the notes consists of overcollateralization, excess interest on the receivables, the Reserve Account, the Capitalized Interest Account, the Equipment Replacement Reserve Account, the Section 25D Interest Account and, in the case of the Class A notes, the subordination of the Class B notes. If the credit enhancement is not sufficient to cover all amounts payable on the notes, notes having a later final scheduled payment date generally will bear a greater risk of loss than notes having an earlier final scheduled payment date.

The credit enhancement (including the overcollateralization and the Reserve Account, and excluding the Capitalized Interest Account and the Section 25D Interest Account) for the notes is as follows:

Rated Notes										
Class	Initial Amount	% of Total Collateral	O/C	Subordination	Reserve Account	Initial Hard CE	Interest Rate	Legal Final Maturity Date	WAL	KBRA Rating
Class A	\$150,079,000	72.00%	9.50%	18.50%	1.00%	29.00%	1.80%	Feb 20, 2048	5.06	A- (sf)
Class B	\$38,562,000	18.50%	9.50%	0.00%	1.00%	10.50%	3.15%	Feb 20, 2048	4.88	BB- (sf)
O/C	19,802,122	9.50%								
<b>Total</b>	<b>208,443,122</b>	<b>100.00%</b>								

**Credit Enhancement Summary**

Initial OC	9.50%
Target OC*	10.00%
Initial Reserve	1.00%
Reserve Floor	0.10%

\* % of current Collateral Balance

**Excess Spread Summary**

Collateral Interest Rate	3.94%
Weighted Average Coupon	2.07%
Servicing Fees	0.13%
Other fees	0.45%
<b>Annual Excess Spread:</b>	<b>1.29%</b>

**Notes:**

- Initial overcollateralization in the transaction is 9.50% of the collateral balance.
- The target overcollateralization level for each period is 10.00% of the original collateral balance.
- Projected excess spread per annum is estimated to be 1.29% based on the weighted average collateral interest rate of 3.94% less an estimated 0.13% servicing fee and 0.45% other fees based on initial pool balance and fees per kW, and weighted average note rate of 2.07%.

**Representations & Warranties**

For more detailed information regarding the representations, warranties and enforcement mechanisms available under the transaction documents, please see KBRA's Sunnova 2021-A, Representations and Warranties Disclosure, which is available [here](#).

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