



*"IS THERE REALLY SOMETHING
NEW UNDER THE SUN?"*

/ STRONG SELL OPINION /

Sunnova Energy International Inc. | NYSE: NOVA



SPRUCE POINT
CAPITAL MANAGEMENT

INVESTMENT RESEARCH REPORT

This research presentation expresses our research opinions. You should assume that as of the publication date of any presentation, report or letter, Spruce Point Capital Management LLC (possibly along with or through our members, partners, affiliates, employees, and/or consultants) along with our subscribers and clients has a short position in all stocks (and are long/short combinations of puts and calls on the stock) covered herein, including without limitation Sunnova Energy International Inc. (“NOVA”), and therefore stand to realize significant gains in the event that the price of its stock declines. Following publication of any presentation, report or letter, we intend to continue transacting in the securities covered therein, and we may be long, short, or neutral at any time hereafter regardless of our initial recommendation. All expressions of opinion are subject to change without notice, and Spruce Point Capital Management does not undertake to update this report or any information contained herein. Spruce Point Capital Management, subscribers and/or consultants shall have no obligation to inform any investor or viewer of this report about their historical, current, and future trading activities.

This research presentation expresses our research opinions, which we have based upon interpretation of certain facts and observations, all of which are based upon publicly available information, and all of which are set out in this research presentation. Any investment involves substantial risks, including complete loss of capital. Any forecasts or estimates are for illustrative purpose only and should not be taken as limitations of the maximum possible loss or gain. Any information contained in this report may include forward looking statements, expectations, pro forma analyses, estimates, and projections. You should assume these types of statements, expectations, pro forma analyses, estimates, and projections may turn out to be incorrect for reasons beyond Spruce Point Capital Management LLC’s control. This is not investment or accounting advice nor should it be construed as such. Use of Spruce Point Capital Management LLC’s research is at your own risk. You should do your own research and due diligence, with assistance from professional financial, legal and tax experts, before making any investment decision with respect to securities covered herein. All figures assumed to be in US Dollars, unless specified otherwise.

To the best of our ability and belief, as of the date hereof, all information contained herein is accurate and reliable and does not omit to state material facts necessary to make the statements herein not misleading, and all information has been obtained from public sources we believe to be accurate and reliable, and who are not insiders or connected persons of the stock covered herein or who may otherwise owe any fiduciary duty or duty of confidentiality to the issuer, or to any other person or entity that was breached by the transmission of information to Spruce Point Capital Management LLC. However, Spruce Point Capital Management LLC recognizes that there may be non-public information in the possession of NOVA or other insiders of NOVA that has not been publicly disclosed by NOVA. Therefore, such information contained herein is presented “as is,” without warranty of any kind – whether express or implied. Spruce Point Capital Management LLC makes no other representations, express or implied, as to the accuracy, timeliness, or completeness of any such information or with regard to the results to be obtained from its use.

This report’s estimated fundamental value only represents a best efforts estimate of the potential fundamental valuation of a specific security, and is not expressed as, or implied as, assessments of the quality of a security, a summary of past performance, or an actionable investment strategy for an investor. This is not an offer to sell or a solicitation of an offer to buy any security, nor shall any security be offered or sold to any person, in any jurisdiction in which such offer would be unlawful under the securities laws of such jurisdiction. Spruce Point Capital Management LLC is registered as an investment advisor with the SEC. Spruce Point Capital Management LLC is not registered as a broker/dealer or accounting firm.

All rights reserved. This document may not be reproduced or disseminated in whole or in part without the prior written consent of Spruce Point Capital Management LLC.

Spruce Point Has Succeeded In Energy Shareholder Activism

Spruce Point wrote a critical activist report on Just Energy in 2013. Shares collapsed over 96% since the report and the Company finally conducted a recapitalization in July 2020. We believe the common theme between Just Energy and Sunnova is that both companies offer a relatively undifferentiated product and service offering and carry too much debt. Investors chasing growth and its dividend without a long-term plan towards sustained profits were ultimately let down.


	
Exchange: Ticker	NYSE and TSX: JE
Report Date	July 31, 2013
Stock Brokers Who Said "Buy"	CIBC/National Bank/RBC/Canaccord
Spruce Point's Criticisms	<ul style="list-style-type: none"> • Value destructive roll-up in the consumer energy marketing space • Deceptive business practice being claimed by customers • Generous 7% dividend yield unsustainable as debt load increases and earnings and cash flow prospects diminish
Successful Outcome	<ul style="list-style-type: none"> • In less than a year, CEO Ken Hartwick submitted his resignation • Company issued restated financials having understated bad debt allowances by \$74.6m and issued a material weakness of financial controls • The dividend was eliminated in Aug 2019 and the Company announced a strategic review of operations with limited progress • Just Energy announced a recapitalization plan in July 2020 • Shares down >96% since report



Table of Contents

1

Executive Summary

2

Solar Installation Industry Overview

3

Undifferentiated Competitive Positioning

4

Potentially Misleading Financial Representation & Aggressive Accounting

5

Poor Underlying Performance

6

Corporate Governance Concerns & Bearish Insider Activity

7

Valuation And Downside Risk



Executive Summary

Spruce Point Estimates 70% - 80% Downside (\$5.00 - \$8.00/share) For NOVA

Sunnova Energy International (“NOVA” or “the Company”) is a residential solar financing business caught in the rising tide of solar energy. In reality, Sunnova is a specialty finance company with undifferentiated offerings that operates in a competitive industry facing secular headwinds. We believe management masks its poor and unsustainable economics with potentially misleading and assumption-based non-GAAP metrics and aggressive accounting. Unlike its solar peers and other financing businesses, Sunnova promotes Adjusted EBITDA, which we believe is the entirely wrong metric to evaluate a business heavily dependent on consumer financing. This is supported by our conversations with a former Sunnova executive, and industry experts who shared our conclusion. Gross contracted customer value is highly dependent on management’s estimates which are based on limited historical data and should not provide investors with confidence. CEO William Berger’s biography omits his previous role at Enron, whose aggressive financial accounting and reporting led to its demise. In addition, CFO Lane obscures his tenure at Madison Williams, a bankrupt broker backed by two investors later charged with fraud. As growth slows and margins deteriorate, the Company’s cash flow profile continues to worsen. We believe the potential misconception of Sunnova as a solar business, as apposed to a financing business, results in sell-side analysts ascribing irrationally high price targets and support its extreme overvaluation. The upcoming catalyst of management’s lockup expiring at the end of September, combined with Energy Capital Partners continuing to liquidate its equity stake, will result in additional downside risk.

Solar Industry Trends Provide Significant Headwinds For Sunnova

- As solar systems become more affordable, the industry is shifting from 3rd party ownership (leases and PPAs) where Sunnova realizes 96% of its revenue, to 100% customer ownership
 - Purchases with cash and loans allow customers to realize the largest savings. In the long-run, customers should favor the option allowing them to capture the greatest financial benefit
- New entrants into the loan market, including Loanpal, continue to gain market share, representing 30% of new loans in Q1 2020 and 17% of all solar financing
- Shifting a larger portion of financings through loans may cannibalize highly profitable solar renewable energy certificate (SREC) revenue
- Losing the investment tax credit will further hurt the economics of Sunnova’s business. Even if the current 30% level is renewed, industry headwinds look to inhibit the Company’s growth

Undifferentiated Business Model, Ill-Positioned In A Highly Competitive Industry Based On A Porter’s Five Forces Analysis

- Sunnova is a small player relative to peers. The merger between Sunrun and Vivint Solar creates the largest player in the industry, well-positioned to capture cost savings and compete more aggressively for new customers to achieve greater scale
- Value proposition does not differentiate Sunnova from its peers:
 - Customer relationships: any solar company offering long-term financing and servicing contracts can claim strong relationships
 - Asset ownership: Sunnova has \$1.98bn in solar assets compared to Sunrun’s \$4.64bn and Vivint Solar’s \$1.85bn
 - Local dealer network: increases counterparty risk; independent salesforce would be expected to direct customer where they are paid the best. We have found several examples of concerning sales practices and other activities by Sunnova and dealer partners
- Sungevity, another Energy Capital Partner investment, filed bankruptcy after claiming a similar asset-light business model, industry-leading customer acquisition platform and channel partner network

Spruce Point Estimates 70% - 80% Downside (\$5.00 - \$8.00/share) For NOVA

We Believe EBITDA And Contracted Customer Value Metrics Are Completely Meaningless To Evaluate Sunnova

- Core earnings, which continue to decline, should be the primary metric to measure the performance of a specialty finance business
- Adjusted EBITDA is a misleading metric to evaluate the financial performance of a financing business
 - EBITDA is not an accurate proxy for free cash flow and does not reflect the Company's financial performance, as Adjusted EBITDA has grown while operating cash flow and free cash flow has declined
 - Treats interest and depreciation as non-core, while they are core to a financing business, representing over 100% of revenue
 - Depreciation is added back as a result of the large investment in its solar systems and ignores the expense as a negative drain on cash flow
 - SEC Comment Letter shows evidence of aggressive use and calculation of EBITDA
- Contracted Customer Value (CCV) relies heavily on management assumptions to project 25+ year contracts when the Company only has 7 years of historical data to back its model
 - Based on Company data, we estimate every 1% change in the discount rate, results in \$170 million change in CCV
 - Auditor PWC has not audited or reviewed Sunnova's CCV metric
 - With so many variables, including life of service agreements, renewal and cancellation rates, production capacity and performance, hours of sun, required repairs, contracted electricity rates, discount rates, and more, how can this metric be predicted with confidence?

Financial Performance Continues To Decline As Growth Slows And Margins Erode; Highly Aggressive Inventory Accounting

- As industry headwinds intensify, topline growth is slowing and reported margins have declined
- Reported gross margin excludes core interest expense required to fund its specialty finance business
 - We calculate gross margin, which is extremely volatile and sometimes negative, significantly below reported margin (~60-70%)
- Gross margins also inflated relative to peers by two highly unusual industry practices
 - Prepaid Inventory: NOVA's prepaid inventory purchases at year end 2019 were 3x peers. We believe the tax benefit associated with these pre-purchases will artificially benefit margins and be a major headwind into 2021
 - Inventory Accounting Method: NOVA uses the weighted average method vs. FIFO for peers. With input prices deflationary in nature, FIFO is the more conservative approach. NOVA's method allows it to report higher margins than peers, all else equal
- Operating and free cash flow continue to decline as the business grows. We believe NOVA's "Adjusted Operating Cash Flow" makes use of numerous aggressive and unsupported addbacks. They portray it as a positive result, but we believe it is deeply negative
- Sunnova relies on access to capital markets to support its unprofitable underlying business. As the balance sheet continues to grow, the economics of the business are stripped out by debt holders and tax equity investors, leaving equity shareholders with an overleveraged business dependent on management assumptions that will likely never generate cash flow for equity holders

Spruce Point Estimates 70% - 80% Downside (\$5.00 - \$8.00/share) For NOVA

Corporate Governance Concerns And Insider Activity Should Worry Investors

- Largest shareholder Energy Capital Partners (ECP) continues to liquidate its position, reducing by ~13% in July and ~24% in August
 - ECP exited its investment in Sungevity, another residential solar company, three months before the Company filed bankruptcy
- As the lockup expires, we believe insiders will follow ECP's lead and be anxious to reduce their positions at today's inflated valuation
- CEO Berger omits his experience at Enron, where he worked for 5 years, from his biography
 - The Enron scandal involved booking mark-to-market earnings upfront on opaque financial models with assumptions that later proved inaccurate. This became known as mark-to-model accounting. We worry Sunnova's non-GAAP metrics employ similarly aggressive interpretations
- CFO Robert Lane and VP of Finance Christian Hettick previously were executives at Spark Energy (SPKE), another energy company with a poor business model promoting high growth, which ended up collapsing
- CFO Lane also obscures his tenure from 2009-2011 at Madison Williams, a now bankrupt energy broker-dealer that was backed by Pan Asia China Commerce Corp (PAC3) and Fletcher International. Fletcher collapsed in 2012. The bankruptcy trustee said "*in many ways, the fraud here has many of the characteristics of a Ponzi scheme*". The SEC later charged PAC3 with securities fraud in a film financing deal
- On September 25, 2020 Audit Chairman C. Park Shaper disclosed a 10b5-1 stock sale program effective August 24th
 - Mr. Shaper came from Kinder Morgan, a Company formed by ex-Enron executives and has been criticized by some as a "house of cards". During Mr. Shaper's tenure as CFO of Kinder Morgan Energy Partners, it received an informal SEC probe into its acquisition accounting for Tejas Gas. Spruce Point observes that Tejas cost investors 18% more than initially proposed, resulting in goodwill ballooning from \$0 to \$152m
 - Kinder Morgan paid \$27.5m to settle a lawsuit that it misclassified expenses to inflate payouts during periods Mr. Shaper was Kinder's President
- Executive compensation is not aligned with performance and metrics do not reflect those used by peers
 - Compensation metrics include Adjusted EBITDA, adjusted operating cash flow and gross contracted value
 - Sunnova's peer group does not fairly represent its business by excluding specialty finance companies
- NOVA's audit partner is an energy specialist, and not a financing specialist better suited for specialty finance companies

Significant Downside Risk As Market Perception Reevaluates Sunnova As A Specialty Finance Business

- Spruce Point arrives at our price target of \$5.00 - \$8.00 per share through a combination of a book value multiple reflecting the declining fundamentals of Sunnova's business and a value per customer in line with solar peers
- Sunnova trades 16% below sell-side brokers' consensus price target of \$31 per share
 - We believe these targets are overly optimistic as a result of using EBITDA and contracted customer value multiple methods
 - Coverage by solar and energy analysts does not reflect the nature of Sunnova's business. We believe coverage should be assigned to specialty finance analysts as is the case with leasing companies such as AerCap and Air Lease.
- Sunrun's acquisition of Vivint Solar provides a key data point to assess valuations in the industry. Sunnova trades at a premium to both peers on a revenue and customer basis, despite generating less revenue per customer and having a less diversified business
- We believe there is limited probability of an acquisition by Tesla/SolarCity as Tesla's market share of the installation and financing market has declined since the acquisition

Specialty Finance Business, Not Solar

Sunnova's website describes itself as a "leading residential solar and energy storage provider"; however, when speaking with a Sunnova customer service representative to inquire about solar panels, the agent blatantly admitted to being a financing company.

Sunnova
Customer Service
Representative
866-786-6682

*"We do not install solar panels. **We only provide the financing.** You need to request a quote on Sunnova.com and one of our partners will reach out to you."*

About Sunnova

Sunnova Energy International Inc. (NYSE: NOVA) is a leading residential solar and energy storage service provider, with customers across the U.S. and its territories. Sunnova's goal is to be the source of clean, affordable and reliable energy, with a simple mission: to power energy independence so that homeowners have the freedom to live life uninterrupted™.

Source: [Sunnova.com](https://www.sunnova.com)

Porter's Five Forces Analysis

An industry executive highly familiar with Sunnova's business model suggested that by evaluating Sunnova's position with Porter's Five Forces its positioning would be weak. We believe as the industry matures and competition increases, these factors will intensify and put additional pressure on Sunnova's business.

Threat of New Entrants

- Financing companies can easily enter the solar financing business
- Cheap capital with current low interest rate environment
- Off the shelf technology
- Outsourced sales force

Threat of Substitutes

- Customers can refinance mortgage or borrow from a bank to finance the cost of installation
- As cost of installation declines, value of financing required for installation would decline, shrinking Sunnova's addressable market
- State solar mandates requiring new construction homes to have solar systems would result in financing by mortgage rather than 3rd party

Industry Rivalry

- Increasing as merger activity accelerating (i.e. Sunrun / Vivint Solar)
- Competition should intensify as solar market penetration grows and Companies are competition for each incremental customer
- **Poor industry economics**: high fixed costs, low variable costs, capacity enters market quickly and is sticky for the long run (once a customer is lost, the customer is lost for ~25 years due to the nature of the contract durations)

Bargaining Power of Customers

- Customers have high bargaining power as they make the ultimate decision and have a lot of different methods to purchase (Home Depot, Costco, catalog, etc.)

Bargaining Power of Suppliers

- Suppliers have high bargaining power as there are multiple players in the financing space and customers have multiple channels to purchase residential solar panels

Sunnova's Unique Metrics

We find Sunnova reports metrics that are not aligned with those its peers report. Spruce Point has concerns about the quality and relevance of these metrics including Adjusted EBITDA, Adjusted Operating Expenses and Adjusted Operating Cash Flow. We believe investors should be concerned by the Company's focus on these highly adjusted metrics that are not reported by Sunnova's peers.

sunnova

SUNRUN

vivint.Solar

	sunnova	SUNRUN	vivint.Solar
Adjusted EBITDA	✓	X	X
Adjusted Operating Expenses	✓	X	X
Adjusted Operating Cash Flow	✓	X	X

We Believe Adjusted EBITDA Is Not Where Investors Should Be Focused

According to a former Sunnova executive and other industry experts, Adjusted EBITDA is not the correct metric to evaluate the business and core earnings (interest income – interest expense – operating expenses) is a better metric. We believe the market may be incorrectly analyzing the performance of Sunnova’s business by using Adjusted EBITDA. In addition, a recent SEC Comment Letter shows evidence of aggressive use and calculation of Adjusted EBITDA.⁽¹⁾ We believe core earnings paints an accurate and different picture.

Is Adjusted EBITDA the correct way to evaluate Sunnova’s financial performance?

Former
Sunnova
Executive

“No, it's not. What you'll see used is a traditional specialty finance company investment model where you use core earnings. All specialty finance companies and really all banks use core earnings.”

“Core earnings takes all interest income, subtracts interest expense, subtracts operating expenses and then divides that by equity and that is what the core return on equity and that's how these businesses really get valued.”

1) [SEC.gov](https://www.sec.gov)

Interest & Depreciation Expenses Are Core To NOVA's Business

We believe the Company and investors should consider interest and depreciation as core operating expenses of Sunnova's business. NOVA's 10K states Adjusted EBITDA is useful to measure core financial performance, while omitting core expenses of the Company's business. We believe Adjusted EBITDA, traditionally used as a proxy for operating cash flow, is not a fair representation of Sunnova's operating cash flow. Using Adjusted EBITDA provides NOVA with the benefit of not accounting for true core operating expenses.

NOVA
2019 10K

*"We believe Adjusted EBITDA is useful to management, investors and analysts in **providing a measure of core financial performance** adjusted to allow for comparisons of results of operations across reporting periods on a consistent basis. **These adjustments are intended to exclude items that are not indicative of the ongoing operating performance of the business.** Adjusted EBITDA is also used by our management for internal planning purposes, including our consolidated operating budget, and by our Board in setting performance-based compensation targets."*

	Interest Expense	Depreciation Expense
Current Method	The installation of these solar systems are primarily financed with debt, the interest is treated as traditional interest and not a core expense	Sunnova invests in solar systems, records the asset on its balance sheet and depreciates them over 35 years. As a result, this core expense is only recorded as an investing cash outflow
Spruce Point's View	<p>Interest expense is core to NOVA's operating business, as the Company relies on debt to finance purchases of solar systems that are then leased to customers</p> <p>Adding back interest expense associated with its leasing business artificially inflates the metric as a proxy for operating cash flow</p>	<p><u>Sunnova deflects investors from capex, instead focusing on adjusted operating cash flow. Capex is depreciated over time</u></p> <p>Depreciation expense is added back to net loss on the basis that depreciation is a non-cash expense, however in NOVA's case, it is a core operating expense. Using EBITDA as a proxy for operating cash flow ignores this true operating expense that is a negative drag on cash</p>

Gross Margin Is Worse Than Appears

Not only is GAAP gross margin decreasing, but this metric does not show the complete picture of the Company's true cost of revenue. Sunnova's largest cost of revenue is the interest expense required to fund its financing business. By including interest expense in the calculation of gross margin, NOVA's true gross margin is substantially lower than its GAAP gross margin and negative over many periods.

	Quarterly				Annual	Quarterly				Annual	Quarterly	
<i>\$ in millions</i>	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020
Revenue (A)	\$20	\$29	\$30	\$25	\$104	\$27	\$35	\$37	\$34	\$132	\$30	\$43
Plus: Interest Income	--	\$1	\$2	\$2	\$6	\$2	\$3	\$3	\$4	\$12	\$5	\$7
Spruce Point Adj. Revenue (B)	\$20	\$30	\$32	\$27	\$111	\$29	\$38	\$40	\$37	\$144	\$34	\$49
Cost of Revenue – Depreciation	(\$8)	(\$8)	(\$9)	(\$9)	(\$35)	(\$10)	(\$10)	(\$11)	(\$13)	(\$44)	(\$13)	(\$14)
Cost of Revenue – Other	--	--	(\$1)	(\$1)	(\$2)	(\$1)	(\$1)	(\$1)	(\$1)	(\$4)	(\$1)	(\$3)
GAAP Cost of Revenue (C)	(\$8)	(\$9)	(\$10)	(\$10)	(\$37)	(\$10)	(\$11)	(\$12)	(\$14)	(\$47)	(\$14)	(\$17)
Less: Total Interest Expense, net	(\$6)	(\$13)	(\$12)	(\$29)	(\$61)	(\$33)	(\$39)	(\$32)	(\$8)	(\$112)	(\$67)	(\$31)
Spruce Point Adj. Cost of Revenue (D)	(\$15)	(\$22)	(\$22)	(\$39)	(\$98)	(\$44)	(\$50)	(\$44)	(\$22)	(\$160)	(\$81)	(\$47)
GAAP Gross Profit (A-C)	\$12	\$20	\$20	\$15	\$68	\$16	\$23	\$24	\$20	\$84	\$16	\$26
Spruce Point Adj. Gross Profit (B-D)	\$5	\$9	\$10	(\$11)	\$13	(\$15)	(\$13)	(\$4)	\$15	(\$15)	(\$47)	\$2
GAAP Gross Margin	58.3%	69.9%	67.3%	61.2%	64.8%	61.4%	67.3%	66.9%	59.3%	64.0%	53.0%	60.5%
Spruce Point Adj. Gross Margin	26.5%	28.2%	32.4%	(41.2%)	11.7%	(49.9%)	(33.5%)	(9.2%)	41.3%	(10.8%)	(136.1%)	4.1%

Note: Figures may not add due to rounding
 Source: Company filings

Gross margin has transitioned from mostly positive to mostly negative

Sunnova's Adjusted Operating Cash Flow Is Not Representative Of True Operating Cash Flow

Spruce Point believes Sunnova's adjusted operating cash flow is not reflective of the nature of Sunnova's financing business. We believe items such as dealer exclusivity payments and prepaid inventory should not be added back to cash flow as they are true operating costs of the business. In addition, Sunnova ignores financing transaction costs despite financing being core to its business. When adjusting for these items, Sunnova's cash flow profile appears much worse than the Company reports.

	Annual	Quarterly				Annual	Quarterly				Annual	Quarterly	
<i>\$ in millions</i>	FY 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020
Sunnova Reported Operating Cash Flow	(\$49)	(\$19)	(\$1)	(\$5)	\$14	(\$12)	(\$24)	(\$31)	(\$19)	(\$96)	(\$170)	(\$58)	(\$25)
Principal Proceeds from Customer Notes Receivable	\$3	\$2	\$2	\$2	\$2	\$8	\$4	\$6	\$5	\$8	\$22	\$7	\$8
Financed Insurance Payments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$2)	(\$0)
Derivative Breakage Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$31	\$6
Distribution to Redeemable NCI	(\$0)	(\$0)	(\$0)	(\$1)	(\$1)	(\$2)	(\$4)	(\$1)	(\$1)	(\$1)	(\$8)	(\$1)	(\$1)
Payments to Dealers for Exclusivity	\$0	\$0	\$0	\$0	\$0	\$0	\$2	\$20	\$10	\$0	\$32	\$5	\$11
Inventory and Prepaid Inventory Purchases	\$2	\$3	\$2	\$2	\$7	\$14	\$4	\$5	\$3	\$115	\$128	(\$2)	\$20
Payments of Noncapitalized Costs Related to IPO	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4	\$1	\$5	\$0	\$0
Sunnova Adjusted Operating Cash Flow	(\$45)	(\$15)	\$3	(\$1)	\$22	\$8	(\$18)	(\$2)	\$2	\$27	\$8	(\$20)	\$19
Less: Derivative Breakage Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$31)	(\$6)
Less: Payments to Dealers for Exclusivity	\$0	\$0	\$0	\$0	\$0	\$0	(\$2)	(\$20)	(\$10)	\$0	(\$32)	(\$5)	(\$11)
Less: Inventory and Prepaid Inventory Purchases	(\$2)	(\$3)	(\$2)	(\$2)	(\$7)	(\$14)	(\$4)	(\$5)	(\$3)	(\$115)	(\$128)	\$2	(\$20)
Less; Payments of Deferred Financing Costs	(\$28)	(\$1)	(\$0)	(\$1)	(\$7)	(\$9)	(\$5)	(\$2)	(\$3)	(\$2)	(\$12)	(\$11)	(\$6)
Less: Payments of Debt Discounts	(\$0)	\$0	(\$0)	(\$2)	(\$1)	(\$2)	(\$1)	(\$1)	\$0	\$0	(\$1)	(\$0)	(\$3)
Less: Payments of Costs Related to Redeemable NCI	(\$3)	(\$1)	(\$0)	(\$0)	(\$1)	(\$2)	(\$1)	(\$1)	(\$2)	(\$2)	(\$5)	(\$1)	(\$1)
Spruce Point Adjusted Operating Cash Flow	(\$77)	(\$19)	\$0	(\$6)	\$7	(\$18)	(\$31)	(\$30)	(\$16)	(\$92)	(\$170)	(\$67)	(\$28)
Delta	(\$33)	(\$4)	(\$3)	(\$5)	(\$15)	(\$27)	(\$13)	(\$28)	(\$17)	(\$119)	(\$178)	(\$47)	(\$47)

Inventory Operating Cash Flow Adjustments Frequently Change, Undermine Confidence

Sunnova adds back “Inventory and Prepaid Inventory Purchases” to its adjusted operating cash flow. Spruce Point disagrees with this as: 1) None of Sunnova’s solar peers have reported inventory add-backs to operating cash flow, 2) The Company provides no disclosure to its rationale for such an add-back, and 3) Since going public in July 2019, the Company has used four (4) different inventory line item disclosure classifications on its adjusted operating cash flow bridge. The table below illustrates these murky changes. We believe investors should have little confidence in the quality of Sunnova’s inventory adjustments and presentation of financials given such frequent changes. Notably, the inclusion of prepaid inventory provides Sunnova greater flexibility to increase Adjusted Operating Cash Flow by a material amount in 2019.

<i>\$ in millions</i>	Annual	Quarterly				Annual	Quarterly				Annual	Quarterly	
	FY 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2018	FY 2019	Q1 2020	Q2 2020
Inventory Purchases	--	\$5.4 ⁽¹⁾		\$1.9	--	--	\$9.5 ⁽¹⁾		\$3.1	--	--	--	--
Inventory and Prepaid Inventory Purchases	\$1.9	--	--	--	\$7.0	\$14.3	--	--	--	\$115.3	\$127.8	--	--
Net Inventory and Prepaid Inventory (Sales) Purchases	--	--	--	--	--	--	\$3.0	--	--	--	--	(\$1.6)	--
Net Inventory and Prepaid Inventory Purchases	--	--	--	--	--	--	\$3.0	\$4.2	--	--	--	(\$1.6)	\$19.6

Bloated Prepaid Inventory Raises Concerns

Spruce Point observes that Sunnova has engaged in a highly aggressive business practice related to prepaid inventory purchases which we believe has provided an unsustainable benefit to recent results. Sunnova added \$96m of prepaid inventory at year end 2019 before the tax credit was reduced from 30% to 22%. This amount, relative to its LTM sales, is more than 3x its peers.

	<i>\$ in millions</i>	12/31/18	3/31/19	6/30/19	9/30/19	12/31/19	3/31/20	6/30/20
Sunnova	Inventory	\$9.2	--	\$16.5	\$17.1	\$43.7	\$115.1	\$120.8
	Prepaid Inventory	\$0.0	--	\$0.0	\$0.0	\$96.2	\$17.1	\$0.0
	Total Inventory	\$9.2	--	\$16.5	\$17.1	\$139.9	\$132.2	\$120.8
	LTM Sales	\$104.4	\$111.3	\$117.0	\$123.1	\$131.6	\$134.7	\$142.8
	Total Inventory / LTM Sales	0.09x	--	0.14x	0.14x	1.06x	0.98x	0.85x
Sunrun	Inventory	\$79.5	\$76.2	\$89.8	\$109.8	\$128.0	\$133.0	\$113.8
	Prepaid Inventory	\$0.0	\$0.0	\$0.0	\$0.0	\$132.6	\$124.6	\$96.7
	Total Inventory	\$79.5	\$76.2	\$89.8	\$109.8	\$260.6	\$257.6	\$210.5
	LTM Sales	\$760.0	\$810.1	\$844.2	\$854.8	\$858.6	\$874.8	\$851.5
	Total Inventory / LTM Sales	0.10x	0.09x	0.11x	0.13x	0.30x	0.29x	0.25x
Vivint Solar	Inventory	\$13.3	\$11.5	\$13.1	\$13.7	\$20.6	\$14.4	\$13.1
	Prepaid Inventory	\$0.0	\$0.0	\$0.0	\$0.0	\$50.1	\$0.0	\$0.0
	Total Inventory	\$13.3	\$11.5	\$13.1	\$13.7	\$70.7	\$14.4	\$13.1
	Solar Energy System Inventory	\$32.2	\$34.5	\$30.4	\$29.7	\$38.4	\$80.8	\$63.8
	Adjusted Inventory	\$45.5	\$46.0	\$43.5	\$43.4	\$109.1	\$95.1	\$77.0
	LTM Sales	\$290.3	\$291.4	\$301.4	\$327.4	\$341.0	\$362.8	\$378.5
	Total Inventory / LTM Sales	0.16x	0.16x	0.14x	0.13x	0.32x	0.26x	0.20x

Spruce Point finds Sunnova's use of the weighted-average method for inventory to be aggressive relative to Sunrun and Vivint Solar's use of first-in-first-out (FIFO). As the costs of solar systems inputs (PV modules, batteries, meters) decline overtime, the use of the weighted-average method lowers Sunnova's cost of goods sold relative to its peers. This increases Sunnova's near-term earnings and is another example of Sunnova's aggressive accounting practices.

sunnova

Inventory

Inventory primarily represents energy storage systems, photovoltaic modules, inverters, meters and other associated equipment purchased and held for use as original parts on new solar energy systems or replacement parts on existing solar energy systems. We record inventory in other current assets in the consolidated balance sheets at the lower of cost and net realizable value. We remove these items from inventory using the weighted-average method and (a) expense to operations and maintenance expense when installed as a replacement part for a solar energy system or (b) capitalize to property and equipment when installed as an original part on a solar energy system. We evaluate our inventory reserves and write down the estimated value of excess and obsolete inventory based upon assumptions about future demand and market conditions. The following table presents the detail of inventory as recorded in other current assets in the consolidated balance sheets:

sunrun

Inventories

Inventories are stated at the lower of cost or net realizable value on a first-in, first-out basis. Inventories consist of raw materials such as photovoltaic panels, inverters and mounting hardware as well as miscellaneous electrical components that are sold as-is by the distribution operations and used in installations and work-in-process. Work-in-process primarily relates to solar energy systems that will be sold to customers, which are partially installed and have yet to pass inspection by the responsible city or utility department. For solar energy systems where the Company performs the installation, the Company commences transferring component parts from inventories to construction-in-progress, a component of solar energy systems, once a lease contract with a lease customer has been executed and the component parts have been assigned to a specific project. Additional costs incurred including labor and overhead are recorded within construction in progress.

vivint.Solar

Inventories

Inventories include solar energy systems under construction that have yet to be interconnected to the power grid and that will be sold to customers. Inventory is stated at the lower of cost, on a first-in, first-out ("FIFO") basis, or net realizable value. Upon interconnection to the power grid, solar energy system inventory is removed using the specific identification method. Inventories also include components related to photovoltaic installation products and are stated at the lower of cost, on an average cost basis, or net realizable value. The Company evaluates its inventory reserves on a quarterly basis and writes down the value of inventories for estimated excess and obsolete inventories based on assumptions about future demand and market conditions. See Note 4—Inventories.

Continuous Need To Raise Capital

Sunnova offers an undifferentiated business model that relies on access to capital markets to support its unprofitable underlying business. The Company generates negative operating cash flow, even before the negative adjustments for working capital. As Sunnova grows its topline revenue, its cash flow profile continues to worsen. As balance sheet leverage grows, the economics of the business are stripped out by the debt holders (through interest and debt payments) and tax equity holders (who gain from the favorable tax benefits solar investments offer). Sunnova is essentially a financial engineered platform that benefits debt holders and tax equity investors who receive all of any generated cash flows. In addition, management and early equity holders benefit as they are able to exit stakes at what we believe to be a currently inflated stock price. Long-term equity holders are last in line and look to be left with an overleveraged, cash draining business, highly dependent on management's optimistic assumptions.

	Annual	Quarterly				Annual	Quarterly				Annual	Quarterly	
<i>\$ in millions</i>	FY 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020
Operating Cash Flow Before Working Capital	(\$36)	(\$9)	\$2	\$3	\$9	\$5	(\$10)	(\$9)	(\$0)	\$2	(\$18)	(\$41)	(\$6)
Less: Working Capital Adjustment	(\$13)	(\$11)	(\$3)	(\$8)	\$5	(\$17)	(\$14)	(\$22)	(\$18)	(\$98)	(\$152)	(\$17)	(\$18)
Operating Cash Flow	(\$49)	(\$19)	(\$1)	(\$5)	\$14	(\$12)	(\$24)	(\$31)	(\$19)	(\$96)	(\$170)	(\$58)	(\$25)
Less: Capital Expenditures	(\$241)	(\$61)	(\$63)	(\$60)	(\$68)	(\$253)	(\$69)	(\$96)	(\$134)	(\$132)	(\$431)	(\$141)	(\$133)
Plus: Other Investing Cash Flows ⁽¹⁾	\$49	\$23	\$24	\$28	\$21	\$96	\$24	\$29	\$38	\$47	\$137	\$43	\$40
Cash Flow Before Financing	(\$338)	(\$104)	(\$89)	(\$93)	(\$75)	(\$360)	(\$117)	(\$156)	(\$191)	(\$274)	(\$739)	(\$242)	(\$198)

1) Includes Payments and customer notes receivable, Proceeds from customer notes receivable, State utility rebates, and Other

Note: Figures may not add due to rounding

Source: Company filings

Major Shareholders Exiting Sunnova

Energy Capital Partners (ECP), an energy focused private equity and credit fund, is Sunnova's largest shareholder, holding ~44% of shares outstanding in March. In July 2020, ECP sold 4.7 million shares or ~13% of its stake for \$16.50 per share, a 5.8% discount to NOVA's closing price. On August 13th, 2020, Sunnova announced another secondary offering of 10 million shares at \$25 per share, an 11% discount to NOVA's closing price. Spruce Point projects the August sale will reduce ECP's stake by 24%. Newlight Partners, Nova's second largest shareholder previously representing over 11% of shares outstanding, sold 2.1 million shares on August 4th, a 21% decline in its position.

SUNNOVA ANNOUNCES PRICING OF SECONDARY OFFERING OF SHARES OF COMMON STOCK

July, 01, 2020

HOUSTON--(BUSINESS WIRE)-- Sunnova Energy International Inc. ("Sunnova") (NYSE: NOVA) today announced the pricing of its underwritten public offering (the "Offering") of 6,076,890 shares of Sunnova's common stock by certain of our stockholders, including affiliates of Energy Capital Partners (collectively, the "Selling Stockholders") at \$16.50 per share. Certain of the Selling Stockholders have granted the underwriters a 30-day option to purchase an additional 911,533 shares of common stock. Sunnova is not offering any shares of its common stock in the Offering and will not receive any proceeds from the sale of shares by the Selling Stockholders in the Offering.

Source: [Press Release](#)

SUNNOVA ANNOUNCES PRICING OF SECONDARY OFFERING OF SHARES OF COMMON STOCK

August, 13, 2020

HOUSTON--(BUSINESS WIRE)-- Sunnova Energy International Inc. ("Sunnova") (NYSE: NOVA) today announced the pricing of its underwritten public offering (the "Offering") of 10,000,000 shares of Sunnova's common stock by certain of its stockholders, including affiliates of Energy Capital Partners (collectively, the "Selling Stockholders"), at \$25.00 per share. Certain of the Selling Stockholders have granted the underwriters a 30-day option to purchase an additional 1,500,000 shares of common stock. Sunnova is not offering any shares of its common stock in the Offering and will not receive any proceeds from the sale of shares by the Selling Stockholders in the Offering.

Source: [Press Release](#)

We believe an increase in the discount of the secondary offering from 5.8% to 11% shows increasing investor skepticism as the largest shareholder continues selling shares

Energy Capital Partners Holdings

	Common Stock Held	Change In Position Size	% of Shares Outstanding
March 2020 Holdings	36.9m	--	43.9%
July Sale	(4.7m)	(12.8%)	--
July 2020 Holdings	32.1m	--	37.8%
Projected August Sale ⁽¹⁾	(7.7m)	(24.0%)	--
Projected August 2020 Holdings	24.4m	--	28.7%

1) Spruce Point assumption of ECP represents an equal percentage of shares in August offering as July offering

Source: Capital IQ

History Of Sunnova's CEO

Sunnova was founded by William J. (John) Berger after he previously founded SunCap Financial, a residential solar service provider and Standard Renewable Energy, a provider and installer of renewable energy and energy-efficient products and services. According to his LinkedIn profile, Berger spent the first 5 years of his career at Enron until the firm collapsed in 2001. Berger was Director of Enron Energy Services, a division headed by Lou Pai. Pai has been referred to as Enron's "invisible CEO" and one of the "brightest brains" at Enron who helped Jeffrey Skilling turn Enron into the fast-paced energy-trading firm it was before its collapse.⁽¹⁾ Berger's biography on Sunnova's website does not mention his stint at Enron, where he started his career and most likely received his formative education and training in business.

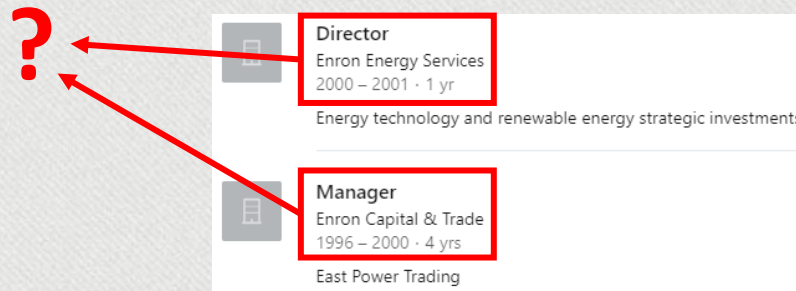
Why doesn't his bio include his stint at Enron?

William J. (John) Berger

Chairman, President and CEO

Mr. Berger founded Sunnova in 2012 and has since then served as Chief Executive Officer, President and Chairman of the Board. With more than two decades of experience in the electric power industry, Mr. Berger is an energy entrepreneur who has always supported free market competition, consumer choice and the advancement of energy technology to power energy independence. Before Sunnova, Mr. Berger served as Founder and Chief Executive Officer at SunCap Financial, a residential solar service provider. He also founded Standard Renewable Energy, a provider and installer of renewable energy and energy-efficient products and services. Mr. Berger received his Masters of Business Administration from Harvard Business School and graduated cum laude from Texas A&M University with a Bachelor of Science degree in civil engineering.

Source: [Company Website](#)



Director
Enron Energy Services
2000 – 2001 · 1 yr
Energy technology and renewable energy strategic investments

Manager
Enron Capital & Trade
1996 – 2000 · 4 yrs
East Power Trading

Source: [LinkedIn](#)

1) [NPR.org](#)
Source: Company filings

CFO's Obscured Role At Madison Williams, Backed By Two Investors Later Charged With Fraud

Sunnova's CFO Robert Lane SEC-filed and public biography excludes explicit mention of his tenure as a Managing Director at Madison Williams and Company (2009-2011), a spin off from Sanders Morris Harris (Nasdaq: SMHG). Madison Williams was backed by two dubious investors: Pan Asia China Commerce Corp (PAC3) and Fletcher Asset Management.⁽¹⁾ Fletcher Asset Management, was described as having characteristics of a Ponzi scheme, and filed for bankruptcy protection in June 2012.⁽²⁾ In August 2016, the SEC filed fraud charges against PAC3 in a film financing scheme.⁽³⁾ Madison Williams ultimately filed for bankruptcy protection in December 2011.

Robert L. Lane

Executive Vice President and Chief Financial Officer

Mr. Lane has served as Sunnova's Executive Vice President and Chief Financial Officer since he joined Sunnova in May 2019. Prior to joining Sunnova, Mr. Lane served as Vice President and Chief Financial Officer of Spark Energy, Inc., a publicly traded retail energy services company, from June 2016 to April 2019. Mr. Lane previously served as the Chief Financial Officer of Emerge Energy Services GP, LLC, the general partner of Emerge Energy Services LP, from November 2012 to June 2015. From December 2011 to November 2012, Mr. Lane was a Managing Director at Global Hunter Securities LLC, where he was responsible for the origination and execution of capital markets and M&A transactions in the midstream industry. Mr. Lane previously served in various roles, most recently as Managing Director, of Sanders Morris Harris Inc. and its affiliates from November 2004 to December 2011, where he led equity research and then investment banking coverage of midstream energy companies, particularly master limited partnerships. Mr. Lane is a Certified Public Accountant and a Chartered Financial Analyst. Mr. Lane received his MBA from the University of Pennsylvania's Wharton School and his Bachelor of Arts degree from Princeton University. He also received a Certificate in the Accountancy Program from the B.T. Bauer School of Business at the University of Houston.

Source: [Company Website](#) and SEC-filed biography

Robert lane's biography does not include his tenure at Madison Williams which is shown on his FINRA Broker Check ([source](#)). Madison Williams was backed by dubious investors



Welcome to Madison Williams and Company – a newly launched firm (controlled by employees and private investors including Fletcher International, Inc) that is capitalizing on market opportunities created by the global financial dislocation. Madison Williams is leveraging its 20-year history within Sanders Morris Harris (SMHG), and has a dedicated team of talented professionals that are passionate about helping our clients achieve their strategic and financial objectives.

With the spin-off from SMHG, we believe that Madison Williams embodies the all too rare Wall Street culture of a private, client-focused and relationship-driven firm. We look forward to introducing you to the team at Madison Williams - where opportunity meets capital

Source: [Waybackmachine](#)

- 1) [Sanders Morris Harris Group SEC filings](#)
- 2) [New York Post](#)
- 3) [SEC files charges PAC3 with Fraud](#)

Peers & Compensation Metrics Not Relevant

While Spruce Point does not agree with Sunnova's selected peers, none of the peers use Adjusted EBITDA or adjusted operating cash flow as a metric for compensation.

	Executive Compensation Metrics	Industry
Clearway Energy	- Cash available for distribution, Key financial milestones, Key transition milestones, Achievement of thermal plan	Electric Utility
Hannon Armstrong	- Core earnings / share, Core ROE	REIT
Pattern Energy ⁽¹⁾	- Cash available for distribution, Return on equity employed, Megawatts added or new PPAs, Safety KPI	Integrated Renewable Energy
SunPower	- Revenue, Adjusted cash flow, Business restructuring objectives	Solar Power Components
Sunrun	- Megawatts deployed, Cash generation, Operational (customer experience related goals)	Solar, Installation, Ownership/Leasing
Vivint Solar	- Cost per watt, Megawatts installed, Individual KPIs	Solar, Installation, Ownership/Leasing
Sunnova	- Adjusted EBITDA plus P&I, Adjusted Operating Cash Flows, Increase in adjusted GCV (gross contracted value), Originated Customer count	Solar Ownership/Leasing

1) Acquired by CPPIB in March 2020
Source: Company proxy statements



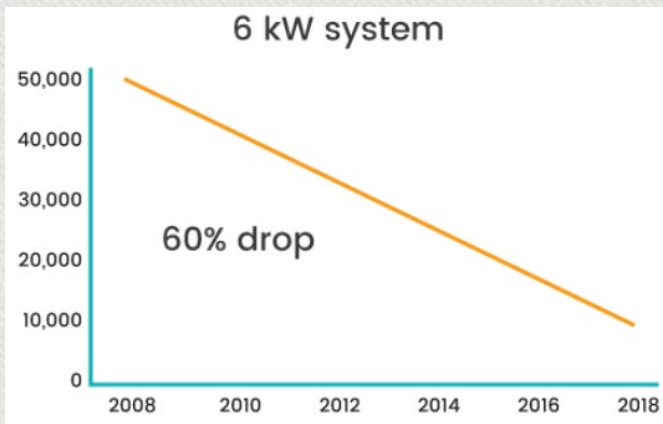
Solar Installation Industry Overview

Since 2008, the cost of solar has declined ~60-70% according to multiple sources. The cost of an average-sized residential system dropped from over \$50,000 in 2008 to ~\$18,000 today. This decline in installation costs has fueled the recent solar industry growth. In addition, as installation costs decline less financing is needed per system installed.

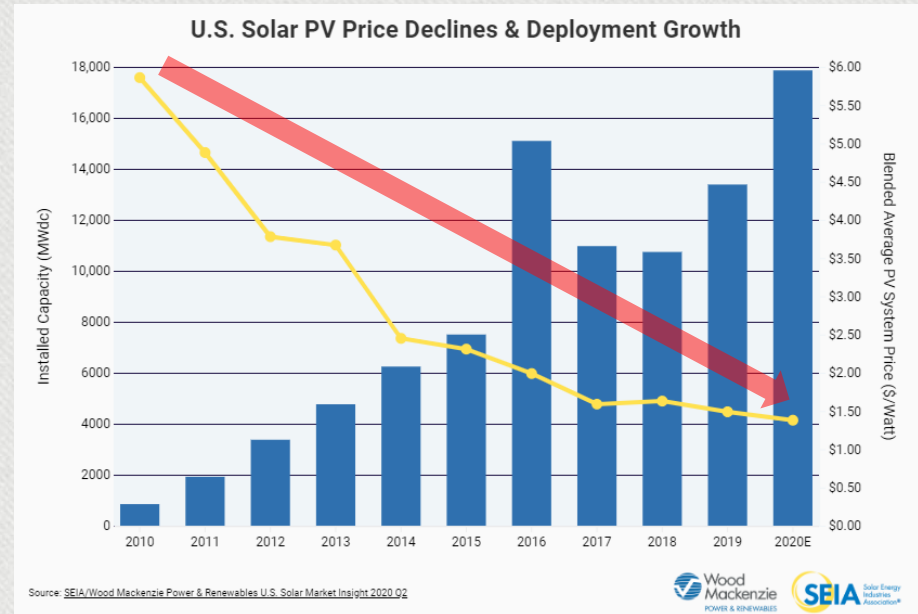
Growth in Solar is Led by Falling Prices

The cost to install solar has dropped by more than 70% over the last decade, leading the industry to expand into new markets and deploy thousands of systems nationwide. Prices as of Q1 2020 are at their lowest levels in history across all market segments. An average-sized residential system has dropped from a pre-incentive price of \$40,000 in 2010 to roughly \$18,000 today, while recent utility-scale prices range from \$16/MWh - \$35/MWh, competitive with all other forms of generation.

Source: SEIA.org



Source: Solarreviews.com



Source: SEIA/Wood Mackenzie Power & Renewables U.S. Solar Market Insight 2020 Q2

Source: SEIA.org

Industry Trends Shift Away From Sunnova

As solar systems become more affordable, the industry is shifting from third-party ownership (leases and PPAs) to customer ownership with outright cash purchases and financing through loans. Customer ownership allows for individuals to capture a larger percentage of the economic savings previously captured by the independent financing companies (i.e. Sunnova), in turn, reducing demand for Sunnova's key offerings.

3rd Party Ownership

Lease System

Power Purchase Agreement (PPA)

- Financing provider (i.e. Sunnova) owns the solar panels and receives the tax benefits
 - Under a lease, the customer leases the solar panels from the financing company
 - Under a PPA, the customer purchases the power generated from the solar system at a predetermined price

Sunnova's Core Business

96% of Sunnova's revenue is tied to 3rd party ownership of solar systems

Customer Ownership

Purchase Outright

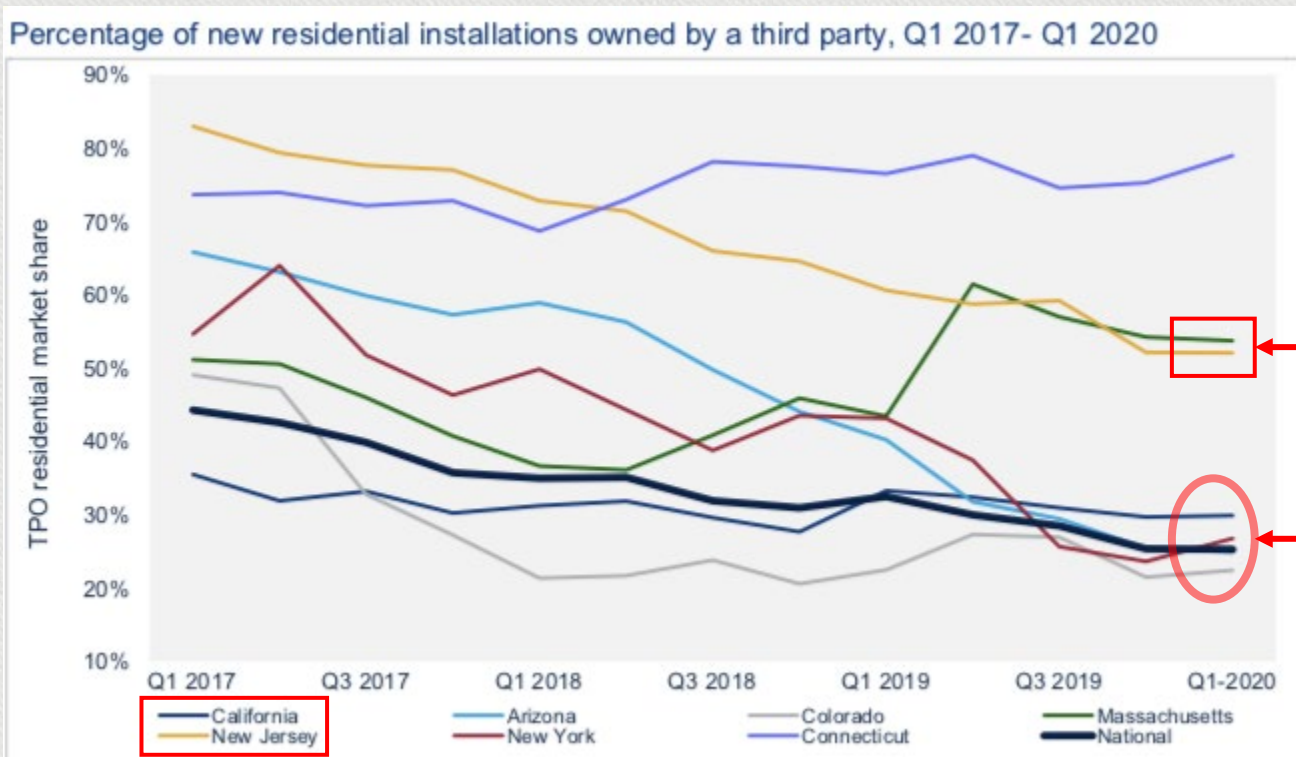
Finance With Loan

- Customer owns the solar panels and receives the investment tax credit (ITC)
 - By purchasing the system outright with cash there is no need for a financing party such as Sunnova to be involved
 - By financing a purchase with a loan the customer has multiple financing options (bank loan, credit card, etc.)

The residential solar industry is shifting away from 3rd party ownership

Decline Of Third-Party Ownership

A majority of the United States solar installation markets are experiencing a reduction in the percentage of third-party owned residential solar systems. We expect this trend to continue and favor solar loan providers. Wood Mackenzie expects a rush to customer-owned systems in the second half of 2020 ahead of another ITC stepdown to 21% at the end of the year.



Key markets for Sunnova

Markets with expected growth

Source: Wood Mackenzie

We believe in the long-run, customers should favor the purchase that allows them to capture the greatest financial savings, along with providing greater flexibility. While cash purchases provide the greatest long-term savings, customers are ahead of lease and PPA agreements from day 1 by financing with a loan. Sunnova has no competitive advantage, and actually could be at a disadvantage due to interest deductibility of home equity loans, relative to alternative financing options. We view loan purchases as the largest beneficiary of the lower interest rate environment.

Best Ways to Pay for Your Panels

Cash

Buying your solar electric system outright is best. It usually costs \$15,000 to \$20,000 after tax credits and can reduce your electricity bill by 70 to 100 percent, depending on the size and orientation of your roof and local regulations. Most systems pay for themselves in five to seven years.

Home Equity Loan

If you need to finance your solar panel purchase, the most cost-effective way to do it is to use a home equity loan or a home equity line of credit. Because your house serves as collateral, these options have low interest rates (currently about 3 to 5 percent). The interest you pay is tax deductible. Equity loans range from 5 to 20 years and usually have fixed interest rates. Equity lines last 10 years and have variable rates (so the interest may increase).

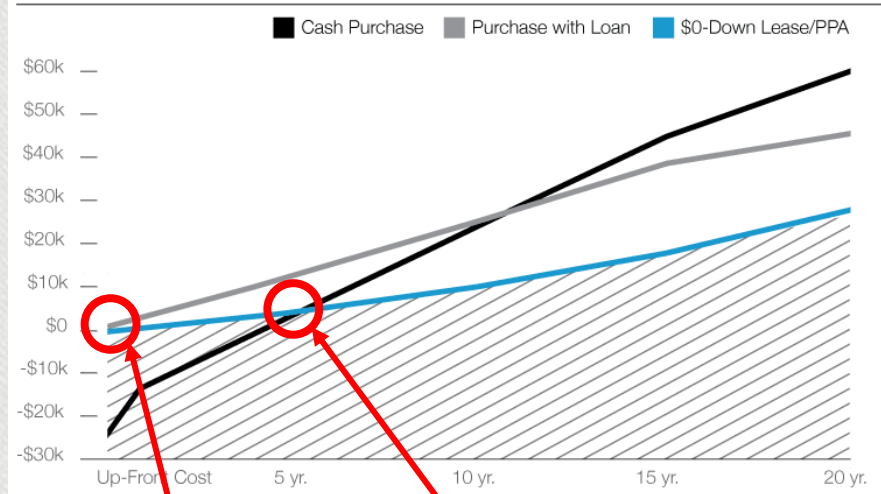
Solar Loan

There are unsecured and secured solar loans. With an unsecured loan, your house doesn't act as collateral and the interest isn't tax deductible. Many solar installers work with lenders that offer solar loans, but you'll probably find better rates by directly checking with banks, and credit unions. Watch out for high origination fees. Fannie Mae also offers consumers financing for solar system installations through its HomeStyle Energy Mortgage Program when they buy a new house or refinance.

Source: [Consumer Reports](#)

A LOOK AT WHAT YOU LOSE BY LEASING

A comparison of how much a residential solar system could save a New Jersey homeowner, depending on whether it was bought up front, bought with a loan, or leased



Source: [Consumer Reports](#)

Relative to leases or PPAs, purchases made with a loan are better off from day 1

Cash customers are better off after 5 years

Lower Mortgage Rates & Higher Home Values Make Home Equity Loans More Appealing

With mortgage rates near all time lows and home values rising, we believe rising home equity levels will allow homeowners an attractive method to purchase solar systems by tapping into the increased value of their home equity. Financing by loan allows customers to benefit from the tax deductibility of interest. This should pose a threat to Sunnova's lease dependent business.

Home prices suddenly see biggest gains in 2 years

PUBLISHED TUE, SEP 1 2020-9:55 AM EDT | UPDATED TUE, SEP 1 2020-11:07 AM EDT

Source: [CNBC](#)

California Home Prices Break Another Record in July

Residential News » [Los Angeles Edition](#) | By [Michael Gerrity](#) | September 4, 2020 8:00 AM ET

Source: [World Property Journal](#)

FLORIDA TREND REAL ESTATE

Florida home sales brisk with dwindling supply boosting median sales prices

| 8/31/2020

Source: [Florida Trend](#)

Las Vegas housing market holding fast, prices hit record \$330,000

by Steve Wolford | Monday, September 7th 2020

Source: [New 3 Las Vegas](#)

BUSINESS » REAL ESTATE

Texas home prices head higher in latest report

Dallas area had the smallest gains among the state's big-city markets.

Source: [The Dallas Morning News](#)

Home values across the country continue to rise, increasing the available home equity value for homeowners to borrow against

Mortgage and home equity loan rates remain at historically low levels, allowing an inexpensive alternative to finance home improvements such as solar panel installations

Mortgage rate forecast for 2020-2021: Experts predict rates below 3%

Source: [Bankrate.com](#)

Maximize The Financial Benefit

It is clear that online sources suggest customers purchase solar panels outright to realize the largest financial savings. While solar energy is an ecofriendly solution, we believe that most customers are motivated by another form of “green” savings, cash, and will continue to shift to outright purchases and loans.

Purchasing a solar panel system with cash, or financing a purchase with a solar loan, is your best option when you...

- Want to maximize the financial benefits of installing a solar panel system, rather than solely benefitting from the system's environmental benefits;

The 6 Most Appealing Reasons to Install Solar Panels

	Cash Purchase / Loan	Lease / PPA
Installation Cost	- Cost between \$15,000 - \$30,000 before rebates which can reduce the total by up to 50%	- Little or no money down - Do not receive tax credits
Maintenance	- Little maintenance due to durable equipment and warranties	- Solar company owns and maintains system
Terms	- Loans between 10-20 years with interest rates between 3-8%	- Leases and PPA agreements generally last 20-25 years
Savings	- Can save between 40-70% off electricity cost over the lifetime of the solar panel system	- Can save between 10-30% off electricity cost

1. Save thousands of dollars
2. Earn tax credits
3. Invest in your home
4. Save the environment
5. Enjoy energy security
6. Decrease your energy reliance

Source: [Solar Power Authority](#)

Source: [EnergySage](#)

Shift To Outright Purchases

As the cost of installation has fallen over the past few years, the trend towards outright ownership has grown. In 2017, this trend along with other industry headwinds resulted in Sungevity filing bankruptcy.

Solar Installers Struggle as Panels Become Cheap Enough to Own

Big players like SolarCity, Vivint see market share drop as homeowners opt to buy rather than lease panels

“More than half of U.S. homeowners now buy their panels with cash or a loan, rather than sign a lease or power purchase agreement, up from 38% of home installations in 2015.”

“Solar firms that offer leases—like SolarCity and Vivint—need to keep adding customers and installing new panels at a fast pace, since their business model relies on bundling leases together and selling shares to banks and other investors.

“You need to support the volume to attract the capital,” said David Field, chief executive of OneRoof Energy Inc., a solar firm that is in the process of liquidating after it ran out of money late last year. “You find yourself in a vicious cycle.””

“The smaller installers that have been gaining market share at bigger players’ expense have lower overhead costs because they don’t employ big sales forces and let others provide financing to their customers. They also offer low-cost loans.

Solar Mosaic Inc. joins with local installers and offers solar-panel loans to homeowners. Mosaic then packages the loans and sells them to banks, insurance companies and other investors.

The company started out making loans for customers of local and regional installers, but it now offers loans to SolarCity and Vivint customers as well.

“There has been a shift in customer preference for loans” rather than leases, Mosaic Chief Executive Billy Parish said.”

Shift From Leases & PPAs To Loans

For those customers unable to purchase outright, there is a shift towards loans from leases and PPA agreements. Within the solar loan market, Sunnova faces significant competition from existing players, new entrants and traditional financing solutions looking to grow share of solar loans. Another trend of smaller installers growing share is contributing to the growth of solar loans over third-party ownership. We believe that although third-party ownership will not disappear as the market continues to shift towards loans, companies such as Sunnova that rely heavily on volume and economics of third-party ownership will be negatively affected.

[Loanpal Now No. 1 In The Booming Solar Loan Market – December 11, 2019](#)

Solar loans started outperforming third-party-owned solar in early 2018.

According to a new WoodMac [report](#), the first half of 2019 saw loans claim a majority of the solar financing market first time, at 55 percent market share.

Loan providers are continuing to build networks of installer partners around the country. Many are also looking to home storage loans and the lower- and moderate-income customer segment for growth — including the newly minted top solar loan provider, Loanpal.

The solar loan market grew by 40 percent year-over-year in the first half of 2019. Solar lending companies and traditional lending sources have expanded their solar loan offerings, giving installers and consumers more financing options.

Smaller installers are driving much of the growth. These installers can find it difficult to partner with TPO providers, and as WoodMac noted earlier this year, many are embracing loan products as a result.

New Entrant In Solar Loan Market

After entering the market only two years ago and being well-capitalized by Sunnova co-bookrunner Goldman Sachs, Loanpal has emerged as a leader in the solar loan market, representing over 30% of new loans in the U.S. in Q1 2020 and 17% of all financing. Loanpal continues to show strong growth in 2020 and is expanding into additional eco-friendly home improvement solutions. Goldman Sachs remains focused on investment in clean energy, targeting total capital deployment of \$150 billion by 2025. [\(Source\)](#)

[Loanpal Receives \\$200 Million Increase Commitment From Goldman Sachs For Residential Solar Loans – January 19, 2020](#)

Loanpal Receives \$200 Million Increase Commitment from Goldman Sachs for Residential Solar Loans

Loanpal, a fintech company leveraging its deep expertise in technology, data and lending to make clean energy products more accessible for homeowners, gives banking partners and installers the confidence to finance residential solar and help combat climate change with clean-energy products. Loanpal is currently lending \$200M/month in residential solar loans and are already responsible for more than 30% of all new residential solar loans in the U.S. Each month they help 6,000 new families go solar.

Source: [GlobalNewswire](#)

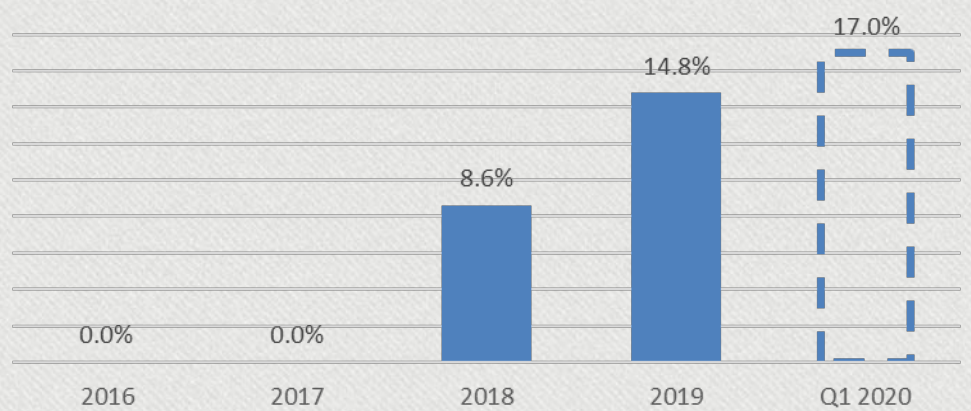
[Goldman To Buy \\$320 Million Of Loans From Solar Lender Loanpal June 9, 2020](#)

[Goldman Sachs Group Inc.](#) committed to buy an estimated \$320 million of loans over the coming six months from [Loanpal](#), the top U.S. provider of residential solar financing.

The bank also expanded its warehouse facility with Loanpal to \$300 million, according to a statement Tuesday. Loanpal provides about \$200 million in loans per month.

Source: [Bloomberg](#)

Loanpal's Market Share Of Total Solar Financing



Source: Wood Mackenzie

Transition To Loans Would Cannibalize SREC Revenue Stream

Assuming Sunnova is forced to follow the industry trend and loans become a larger share of the Company's solar deployments, Sunnova would lose its highly profitable solar renewable energy certificate (SREC) revenue stream. SRECs are a form of government incentive generated for each megawatt of electricity produced by a solar energy system and are sold to electric utility companies who are required to meet government regulated renewable portfolio standards. As SRECs can be sold with or without the associated electricity, it has potential to generate high margins for the seller (i.e. Sunnova). Since Sunnova does not own the solar system under a loan agreement, the Company is unable to generate the level of revenue from selling SRECs, further impacting the economics of Sunnova's business model. Spruce Point believes this high margin revenue stream is at risk of almost entirely disappearing.

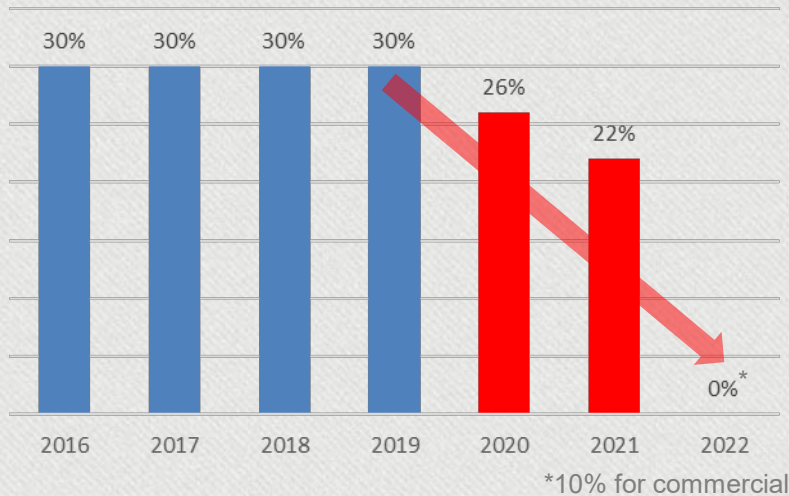
	Annual	Quarterly				Annual	Quarterly				Annual	Quarterly	
<i>\$ in millions</i>	FY 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020
Total Revenue	\$76.9	\$19.8	\$29.0	\$30.4	\$25.2	\$104.4	\$26.7	\$34.6	\$36.6	\$33.6	\$131.6	\$29.8	\$42.8
SREC Revenue	\$24.8	\$5.0	\$8.9	\$9.9	\$6.8	\$30.6	\$6.6	\$9.7	\$10.6	\$11.5	\$38.5	\$4.4	\$8.7
Y-o-Y SREC Revenue Growth	--	--	--	--	--	23%	33%	9%	7%	69%	26%	(34%)	(10%)
SREC as % of Total Revenue	32%	25%	31%	33%	27%	29%	25%	28%	29%	34%	29%	15%	20%

SREC revenue has declined in the first half of 2020 and is beginning to contribute a smaller percentage of total revenue

Loss Of Tax Credits Hurts Economics

Without the renewal of the current 30% Federal Investment Tax Credit (ITC) for the construction of residential solar systems, the underlying economics of the solar leases and PPAs would deteriorate as the level of the ITC drops from 30% to 22% in 2021 and 0% in 2022 (10% for commercial). This hurts the economics of Sunnova's business which relies heavily on capital from tax equity investors. We believe there are multiple outcomes, all of which are negative for Sunnova, regardless if an extension to the solar ITCs were to occur.

Investment Tax Credit For Residential Solar



NOVA: Negatively Exposed Regardless Of New Tax Credits

Tax credit renewed



Current headwinds continue: installation costs remain low, continuing the trend of outright purchases and loans, therefore hurting Sunnova's market of leases/PPAs

No tax credit or renewed at a reduced level



1. Increases the net cost of installation, should slow solar industry growth
2. NOVA is to become less enticing for tax equity investors, historically a major source of capital for Sunnova

Margins Highly Dependent On Regulation

We estimate gross profit per system will continue to drop as the solar investment tax credit steps down over the next 2 years. Lower margins and a reduced benefit for tax equity investors look to pressure an industry which already has tight margins and relies on tax equity to support their negative cash flows.

	Per Watt	6kW System				
		30% ITC	26% ITC	21% ITC	10% ITC	0% ITC
Revenue & Costs						
Average Selling Price (A)	\$4.00	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000
Customer Acquisition Cost	(\$1.00)	(\$6,000)	(\$6,000)	(\$6,000)	(\$6,000)	(\$6,000)
Materials	(\$0.80)	(\$4,800)	(\$4,800)	(\$4,800)	(\$4,800)	(\$4,800)
Labor	(\$0.40)	(\$2,400)	(\$2,400)	(\$2,400)	(\$2,400)	(\$2,400)
Other	(\$0.80)	(\$4,800)	(\$4,800)	(\$4,800)	(\$4,800)	(\$4,800)
Total Costs (B)	(\$3.00)	(\$18,000)	(\$18,000)	(\$18,000)	(\$18,000)	(\$18,000)
System Profit Before Tax Credit (A-B=C)	\$1.00	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Solar Investment Tax Credit						
Fair Market Value	--	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000
Tax Credit	--	(\$6,300)	(\$5,460)	(\$4,410)	(\$2,100)	\$0
Cost Including Tax Credit (D)	--	(\$11,700)	(\$12,540)	(\$13,590)	(\$15,900)	(\$18,000)
System Profit Including Tax Credit (A-D=E)	--	\$12,300	\$11,460	\$10,410	\$8,100	\$6,000
Gross Profit Before Tax Credit (C/A)	--	25%	25%	25%	25%	25%
Gross Profit After Tax Credit (E/A)	--	51%	48%	43%	34%	25%

Miscalculating Probability Of ITC Extension

Spruce Point believes the recent rise in solar stocks is due to the assumption of a change in Washington D.C. and favorable benefit to the solar industry from a potential Biden administration's policy. Our research has shown mixed views, and nothing showing total certainty, on the possibility of an extension to the solar tax credits. According to Sunrun, a 4% reduction in costs and 2% increase in prices would be required to offset the loss from a runoff in the ITC. In a highly competitive industry where all players compete for each incremental customer, we find it unlikely for companies to pass through increased costs.

Senior Solar
Industry
Executive

"You're really in 50/50 land on the federal investment tax credit being extended. I'd say as of March or April people had sort of a 10% level of competence in the tax credit getting extended. The people in my network, I'm hearing more of mixed optimism. I'd say that you do get another Hail Mary like we got four years. Nobody expected the tax credit to get renewed four years ago. From what our regulatory team told us, it was a last item on the docket before everybody adjourned.

***I'm on the 50 that says, I don't think it gets renewed.** If you add a broader audience, I think you're going to find a lot of people that do believe it will get accepted. And what I would say is, is if Biden's elected, I get a lot more optimistic about it. If Biden gets elected, I think maybe then you got a 50/50 shot and **I still don't think it gets extended.**"*

Former
Sunnova
Executive

*"Biden announced the \$2 trillion policy and I think people are assuming that's going to directly benefit those companies and it probably will, but getting that implemented is going to be challenging. **I think a lot of what the focus will be under a Biden administration will be offshore wind and energy efficiency.** Putting a carbon tax or some sort of carbon mechanism in place to address this."*

Sunnova CEO
Q4 2019 Call
Feb 27, 2020

"We would need to do to maintain neutrality on that is to improve costs by about 4% every year and raise pricing by about 2% each year. And so we think that's incredibly doable. So that and not only envisions solar. So it doesn't necessarily envision the fact that consumers are willing to pay even more money to add the battery, and that there's also additional sources of value that can come from the grid services type programs for the battery. So putting that aside, we think we're well on the path to be able to absorb those declines and have the competitive advantage. At our scale, right now, we have safe harbor, I believe, more megawatts than any other company. There's no reason why we won't be able to continue to do that. So that should be a margin that we're able to capture uniquely."

Industry
Executive

"You only have so many levers to make up that delta. You're going to have to be pulling on every lever."



Undifferentiated Competitive Positioning

Porter's Five Forces Analysis

An industry executive highly familiar with Sunnova's business model suggested that by evaluating Sunnova's position with Porter's Five Forces its positioning would be weak. We believe as the industry matures and competition increases, these factors will intensify and put additional pressure on Sunnova's business.

Threat of New Entrants

- Financing companies can easily enter the solar financing business
- Cheap capital with current low interest rate environment
- Off the shelf technology
- Outsourced sales force

Threat of Substitutes

- Customers can refinance mortgage or borrow from a bank to finance the cost of installation
- As cost of installation declines, value of financing required for installation would decline, shrinking Sunnova's addressable market
- State solar mandates requiring new construction homes to have solar systems would result in financing by mortgage rather than 3rd party

Industry Rivalry

- Increasing as merger activity accelerating (i.e. Sunrun / Vivint Solar)
- Competition should intensify as solar market penetration grows and Companies are competition for each incremental customer
- **Poor industry economics**: high fixed costs, low variable costs, capacity enters market quickly and is sticky for the long run (once a customer is lost, the customer is lost for ~25 years due to the nature of the contract durations)

Bargaining Power of Customers

- Customers have high bargaining power as they make the ultimate decision and have a lot of different methods to purchase (Home Depot, Costco, catalog, etc.)

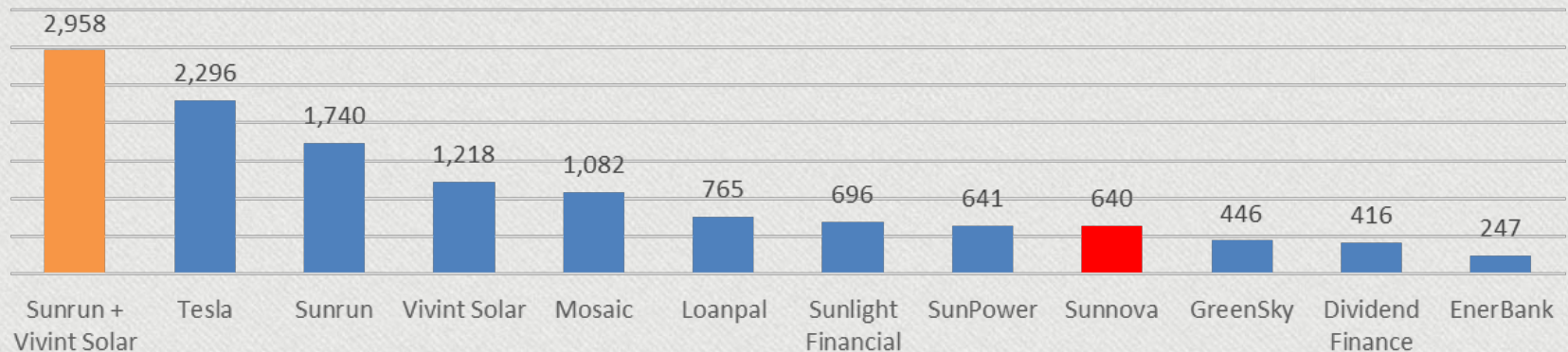
Bargaining Power of Suppliers

- Suppliers have high bargaining power as there are multiple players in the financing space and customers have multiple channels to purchase residential solar panels

Small Player In A Competitive Industry

In July 2020, Sunrun announced the acquisition of Vivint Solar, creating the largest player in the industry on a pro forma basis. The transaction is intended to result in cost synergies and the combination of complementary direct-to-home sales channels. As a result, Sunrun may be able to compete more aggressively for new customers, therefore increasing pressure on Sunnova and smaller players. On Sunrun's M&A call, the CEO first mentions capital costs, reinforcing our belief that it is the main driver of success in the solar financing industry. Spruce Point believes the need for cost driven mergers, rather than revenue driven synergies, is a bearish sign of the competitive pressure in the industry.

Cumulative Directly Financed Installed Solar Capacity (2012 – Q1 2020)



M&A Call – July 7, 2020

Founder & Chairman
Sunrun

*“As the industry leader, Sunrun has enjoyed capital cost advantages. By joining arms with Vivint Solar, we expect to further our advantages in 2 ways. First, we’ll be even more **regular issuers of debt securities, which should drive down our capital costs.** And second, with our combined size, we will more easily appeal to investors with enormous minimum check sizes, such as pension funds, who often enjoy a lower cost of capital. **Over time, these advantages will benefit our customers and shareholders, while allowing us to accelerate the adoption of affordable, renewable energy.**”*

CFO
Sunrun

*“I’m excited by the magnitude of synergies we can realize through this acquisition, which **will allow the combined company to operate more efficiently and reduce the cost to the consumer of going solar.**”*

Competition To Intensify As SunPower Expands Residential Solar Lease Business

SunPower, a Sunnova competitor, continues to expand its financial backing to offer customers attractive solar leasing options. Spruce Point believes competition will continue to intensify, further pressuring Sunnova to grow and maintain its current market share. We believe Sunnova's undifferentiated offerings make the Company ill-positioned to compete with diversified solar companies.

[SunPower Press Release – September 22, 2020](#)

SunPower Secures Attractive Financing for Residential Solar Lease Business Through 2021 New Fund Includes Option to Lease SunPower's SunVault Energy Storage System

SAN JOSE, Calif., Sept. 22, 2020 /PRNewswire/ -- SunPower (NASDAQ:SPWR) today announced that it has secured financing commitments from Hannon Armstrong Sustainable Infrastructure Capital, Inc. (Hannon Armstrong) (NYSE:HASI) and other capital providers for its residential solar lease program, as well as its new solar plus storage program, SunPower Equinox® system with SunVault™ storage. SunPower expects the new fund to help meet expected customer demand through mid-2021. These attractive customer financing provisions will supplement the solar loan and cash sale alternatives currently offered by SunPower.

The new fund is structured as a levered tax equity partnership with a multi-party forward purchase commitment. The financing commitments for this new fund are being provided by both new as well as repeat groups of loan and equity providers that continue to have strong long-term relationships with SunPower and Hannon Armstrong. SunPower expects the new facility to materially lower financing costs given its improved capital structure while continuing the company's commitment to its customers throughout the life of the lease.

SUNPOWER®

SunPower Investor Call
September 10, 2020

*“Our lease financing team inside SunPower has been **very actively working on improving our lease offering** as well. We're just a few days away from announcing a significant addition to our lease portfolio, which takes funding well through 2021. Most importantly, it doesn't just provide great lease capability to customers and our dealer partners, this technology actually **increased our gross margins over \$0.40 a watt**. I would say this is one of the areas since we became much more focused on the space that has really improved our fundamental financials as a company. Advances in financing are playing a big part in driving our increased profitability, but also our increased dealer loyalty.”*

Value Proposition Is Not Differentiating

Sunnova sells its investors on “A Differentiated Ecosystem” built on customer relationships, asset ownership and a network of local dealers. This “story stock” requires continued financing to raise capital necessary to remain afloat. In reality, Sunnova is a legacy residential solar financing provider with undifferentiated offerings (leases, PPAs, loans).

Principle	Sunnova Value Proposition	Spruce Point Opinion
Customer Relationships	<p>“Sunnova owns the long-term service relationship typically under 25-year contracts, positioning us to meet the evolving needs of our customers”</p> <p>“Entire customer experience managed via Sunnova’s scalable technology platform”</p>	<p><u>No differentiation over its competitors</u></p> <p>Any solar installation company that offers long-term financing (leases, PPAs, loans) and servicing contracts to its customers can claim this</p>
Asset Ownership	<p>Sunnova has \$1.98 billion of solar energy system assets on its balance sheet</p>	<p><u>No differentiation over its competitors</u></p> <p>Sunrun has \$4.64 billion and Vivint Solar has \$1.85 billion of solar energy systems on its balance sheet</p>
Local Dealer Network	<p>“Our success was made possible by 227 dealers and sub-dealers who comprise our differentiated low-cost model.”</p> <p>While Sunrun and Vivint Solar operate a hybrid model (both internal and external sales teams), Sunnova exclusively sells through a sales channel of independent dealers.</p>	<p><i>“In the case of this Sunnova model, all the leverage is with the salesperson.”</i> –former Sunnova employee</p> <p>While this model reduces sales and marketing costs it increases counterparty risk. Independent sales force will direct customer wherever they are paid the best</p>

Downsides Of Dealer Model

As a residential solar financing company, Sunnova provides commodity products and competes with numerous providers for installer relationships. Given the unfavorable economics of the financing business and high fixed costs, companies are incentivized to compete for each additional contract while dealers are incentivized to reward the financing partner where they receive the highest compensation. Unlike many of its competitors, Sunnova operates exclusively through independent dealers for both customer acquisition and installation. As of June 2020, the Company has 227 dealers in its network, but Trinity Solar accounts for greater than 30% of originations. As part of an exclusivity agreement with Trinity Solar, Sunnova paid Trinity \$20 million in the first year and will pay \$10 million in each year thereafter. Sunnova enters into similar agreements with other dealers. Essentially, Sunnova is purchasing future origination volume. While this model reduces sales and marketing expenses, it creates significant risks.

Former
Sunnova
Employee

"The salesperson is controlling the customer, it's a tabletop sale. You know that salesperson is going to direct that sale to the residential solar financing company that pays them highest price. Yeah. There's no differentiation either, even the colors are the same. Just to prove it to yourself, get a copy of Sunnova's contracts and compare that to SolarCity's. There's just not that much different. The salespeople want to maximize their gain and they'll sell that contract to the highest bidder."

Former
Sunnova
Employee

*"I think if people look, Sunnova discloses to be paying exclusivity payments to channel partners. So in order to prevent the channel partner from shifting the volume to other players and bidding it out fluidly, they have been **making advanced payments to these channel partners to secure volume**, which is important and is prudent in the sense that if you don't have the volume you can't get scale. I think it's a good idea, but it's diluted to the equity of the business because you're buying the volume. It just means you're just paying an advanced payment to lock it up. But the next time, that goes on for a year, and next year I guarantee you that channel partner is going to be talking to Sunrun, SolarCity and a couple of the other players out there to see if they can get the same deal.*

They're just bidding. They're just bidding the volume, probably the way it evolves is there's an intermediary services that helps customers bid this out to get the best price. Kind of like bankrate.com. You put in your parameters and they get you the cheapest rate. It's very capital light and gives customers what they need."

Exclusivity Agreements Raise Concerns

Sunnova's exclusivity agreements limit Sunnova while providing upside for its partners. We believe Sunnova is forced to pay "exclusivity bonuses" to secure volumes for its undifferentiated financing services. Sunnova pays partners to send them its leads when in turn, we believe if Sunnova provided any value, Sunnova should be the party receiving exclusivity payments from partners.

We question why Sunnova would be paying "exclusivity bonuses" to its channel partners who are not limited to using Sunnova's financing solutions? Sunnova is required to send all its leads in a given geography while partners (i.e. Trinity Solar, one of Sunnova's largest partners) are not required to use Sunnova financing for its customers.

Industry Executive

"So it's really a benefit to Trinity, not to Sunnova. It's very easy to give for Trinity. It's very easy to get a Sunnova exclusive."

Manager Trinity Solar

"We mostly provide financing through Sunnova, but can also offer Sunrun, Sunlight and other financing providers."

CEO Sunnova
Q4 2019 Call
Feb 25, 2020

"At year-end, the total number of dealer and sub dealers who partnered with Sunnova reached 155, a 14% increase from the end of September 2019. We currently have a growing backlog of high-quality contractors, who are looking to become Sunnova dealers and an increasing number of them desire exclusivity."

BoA Analyst

"Could you discuss, actually, a bit more on the increase in exclusivity for dealers?"

CEO Sunnova
Q4 2019 Call
Feb 25, 2020

"What did come as a surprise that we recently had our dealers summit, and this was something that was a pretty strong feedback. I think, look, we're adding a lot of operational capabilities to the company. And then, again, looking at our widest product portfolio, there really isn't a need. And certainly, there is a desire to cut costs by the dealers to just plug in again to one service platform. Our strong financial position, relationships, we've proven that we're focused on the dealer and the customer and service. So all that comes together is that dealers are looking to find a home. They want to be able to pick up the phone, talk to senior management if need be because things do happen on both sides of the relationship, and they know we're totally focused on them. And so that is giving a lot more comfort to folks, and you're seeing a lot of dealers talks amongst each other that are not yet Sunnova dealers and saying, you know what, you need to come over here. This is home. This is the place you want to be. This is where you can build your business over the long term."

Why wouldn't a dealer sign up to receive "exclusivity payments" with those benefits, while still being able to work with other providers?

Sunrun Cautious Of Independent Dealers

Sunrun, one of Sunnova's largest competitors and a market leader of solar installations, relies on in-house installation teams. Sunrun's CEO states that independent dealers hurt the economics of the business and prevent the highest level of long-term value to customers. Both Sunrun and Vivint Solar believe that the direct selling model will experience faster growth than dealer channels and is best positioned in the current market environment.

Lynn Michelle Jurich
CEO of Sunrun
Q4 2019 Earnings Call
February 27, 2020

"As always, we are focused on the building the industry's most valuable and satisfied customer base. We maintain discipline on unit-level economics and deliver long-term value to our customers. This is why we've achieved our market-leading position, and we intend to keep it. We don't compete with dealer-only businesses who lack the capability to ensure a positive customer experience and who pay unsustainable prices. We are exercising caution around the industry's recent acceleration of the direct selling or door-to-door sales channels through independent sales dealers. I want to be very clear that this is an important acquisition channel, but it needs to have controls in management to prohibit aggressive practices that won't serve customers or investors over the long run. The customer acquisition channels, including retail that we serve with our salespeople are growing over 20% and will be durable and provide cost reductions over time."

Lynn Michelle Jurich
CEO of Sunrun
Q1 2020 Earnings Call
May 6, 2020

"We are seeing that the larger companies like ourselves and some of the larger dealers are faring better. It's just they have the balance sheet to keep people employed to install. They can spend on advertising and digitization of the selling process. So all in, I would suspect that our direct will take share versus the pre-COVID for all those reasons that the market leaders, I think, will take share generally."

David H. Bywater
CEO of Vivant Solar
Q4 2019 Earning Call
March 10, 2020

"Our growth is coming across all of our channels, but remains strongest in our inside sales, retail and home builder channels. In the fourth quarter, these channels represented 13% of our total volume, up 21% sequentially and 146% year-over-year. Our inside sales team has been performing especially well with volume growth of 40% year-over-year. For 2020, we expect those channels to continue to grow faster than our direct-to-home and dealer channels, representing a larger portion of our volume and allowing us to reach additional customers at lower overall costs."

Dealer Counterparty Risk

Sunnova faces significant counterparty risk from its dealers, who are paid in milestones, usually at contract execution, install and when permission to operate is received from the utility. Sunnova partners that go bankrupt may be unable to reimburse the Company for millions of dollars in upfront payments. In June 2020, PetersenDean, a Sunnova partner, filed for bankruptcy protection.

[Green Tech Media – June 16, 2020](#)

Solar Installer PetersenDean Files for Bankruptcy Protection, Cites Coronavirus

The pandemic racks up more pain for the solar industry, but PetersenDean installations had been in decline for years.

When it came to selling solar in 2020, PetersenDean was expected to have a particular advantage in its home state, where new building codes that went into effect this year required most new homes to come paired with a solar installation. The roofer had forged financing and supply partnerships with national solar companies Sunnova and SunPower to take advantage of the new solar regulations.

Dealer Counterparty Risk (*continued*)

In June 2017, the FBI raided Code Green Solar, a Sunnova partner. When the Company collapsed in 2018, we found it owed Sunnova \$15 million. Compared to Sunnova's Q1 2018 revenue of \$19.8 million, we believe Code Green was a major partner of Sunnova at the time. According to Code Green's CEO, 94% of solar arrays were built with Sunnova. In May 2019, Code Green Solar CEO Charles Kartsaklis pleaded guilty to wire fraud and defrauding the U.S. Treasury Department by falsely claiming the Company had installed solar panels and manufactured fraudulent documents.

[FBI Agents Descend On Solar Company Headquarters – June 27, 2017](#)

The bureau's Philadelphia Division confirmed that FBI personnel were "conducting court-authorized law enforcement activity" at Code Green Solar headquarters at 523 Hollywood Ave. Wednesday.

[N.J. Solar Company Made Millions. Here's What's Behind Its Dramatic Downfall Sep 1, 2018](#)

The nail in the coffin came a month ago when an arbitrator decided the company had to pay \$15 million to its funding partner, Sunnova, over a contract dispute.

It was a big blow as 94 percent of Code Green's solar arrays were built with Sunnova, Kartsaklis said. He reduced his workforce -- that had peaked at 600 -- to about 140 people, he said.

[United States Attorney's Office District Of New Jersey](#)

Department of Justice

U.S. Attorney's Office

District of New Jersey

SHARE 

FOR IMMEDIATE RELEASE

Friday, May 3, 2019

President And Chief Executive Officer Of Now-Defunct Code Green Solar LLC Admits Wire Fraud Scheme

CAMDEN, N.J. – A former Camden County, New Jersey, man today admitted perpetrating a long-running scheme to defraud the U.S. Treasury Department of millions of dollars by falsely claiming federal rebates for solar panels his company never installed. U.S. Attorney Craig Carpenito announced.

Charles E. Kartsaklis, 41, formerly of Erial, New Jersey, and now living in Davenport, Florida, pleaded guilty before U.S. District Judge Noel L. Hillman in Camden federal court to an information charging him with one count of wire fraud. Kartsaklis was released on bail.

According to documents filed in this case and statements made in court:

Since 2009, Kartsaklis has been the president and chief executive officer of Code Green Solar LLC, a now-defunct New Jersey solar panel installation business. In 2011 and 2012, Kartsaklis submitted proposals on behalf of Code Green Solar to install solar panels at several businesses in New Jersey, identified in court papers as Businesses 1 through 5. Businesses 1 through 5 rejected the proposals. Nevertheless, Kartsaklis applied for and obtained federally funded rebates totaling more than \$2 million by falsely claiming that Code Green Solar had installed solar panels on each of those businesses. He manufactured fraudulent documents and electronically transmitted them to the U.S. Treasury Department, including:

Challenges In Puerto Rico

Maximo Solar Industries (MSI), a Sunnova channel partner in Puerto Rico, sued Sunnova alleging abusive business practices that forced half a dozen solar installers to close. The allegations included withholding payment for installation services, resulting in the insolvency of six installation companies.

In addition, Sunnova's installer network exposed the Company to significant risk using potentially predatory and deceptive sales practices that led to a government investigation and legal dispute with one of Puerto Rico's largest installers. 436 consumers filed a complaint with the Puerto Rico Energy Bureau (NEPR). As a result of the problems in Puerto Rico, the Better Business Bureau revoked Sunnova's accreditation.

['Abusive' Contracts. Defunct Solar Panels After Hurricane Maria. Texas Company Hit With More Than 400 Complaints, Investigation Finds – February 29, 2019](#)

Complaints include:

- Customers thought they were agreeing to a credit check but instead had signed up for a 25-year contract with Sunnova.
- Sunnova misled customers on potential savings with their solar panels.
- Sunnova didn't fully reveal costs of solar panel financing to customers.

[Solar Company Sunnova Losing Some Of Its Glow Amid Complaints – April 12, 2019](#)

But Sunnova, in business for less than a decade, is losing some of its glow as customers from New Jersey to California say the company installed defective panels, ignored requests to fix them and delivered the power at higher costs than promised. Regulators in Puerto Rico found the company enrolled customers in expensive power plans by attaching signatures to contracts they hadn't signed. And the Better Business Bureau, which once gave Sunnova its top score, is in the process of revoking the company's accreditation because of the problems in Puerto Rico.

[Better Business Bureau – Sunnova](#)

BBB Rating & Accreditation

NR

THIS BUSINESS IS NOT BBB ACCREDITED

Years in Business: 7

[Puerto Rico Solar Customers Score A Win In Fight Over 'Abusive' Contracts – February 19, 2019](#)

The 436 consumers who filed a complaint with the Puerto Rico Energy Bureau (NEPR) against Sunnova Energy Corporation, a residential solar panel leasing company, were right. The NEPR recognized in a report the web of problems the complainants faced: the equipment did not provide the service or savings promised to consumers.

They had put their signature on a tablet for an alleged credit check, but the company used the signature to stamp it on a contract that they had not been shown. The clients found out that, to challenge the invoices or seek any remedy, they had to go through an arbitration process (outside the courts and the NEPR) and pay lawyers' fees. Thus, they ended up tied for 25 years to an energy purchase agreement that they had not seen before signing and from which there was no escape.

But the NEPR concluded on Feb. 15, 2019, that, by forcing them to resolve the disputes through arbitration, Sunnova violated consumers rights to seek remedy before that entity, as mandated by Law 57 of 2014. As a corrective measure, the NEPR ordered Sunnova to amend the contracts, and establish a protocol that discloses the complete information on the services it offers, and to allow customers to object their invoices.

Sungevity Case Study

Sungevity, a solar installation company claiming to have a unique business model, attempted to go public through a SPAC in 2016. Like Sunnova's value proposition, Sungevity touted its asset-light business model built on customer relations and leading network of installation partners. After the deal to go public fell through, Sungevity filed bankruptcy in March 2017. Will asset-light Sunnova with its network of dealers suffer a similar demise? Since emerging from bankruptcy, Sungevity is facing financial struggles as a result of the COVID-19 pandemic, laying off 400 employees in 2020.

[Sungevity Investor Presentation – November 2016](#)

TRANSACTION HIGHLIGHTS



Scalable Business: Asset-Light Platform Model



Industry-Leading Customer Acquisition Platform & Channel Partner Network

- Asset-light business that manages sales process, automates design, and outsources origination, hardware, installation, financing, and services for residential and commercial markets
- Provides best-in-class customer experience leveraging technology for efficient customer acquisition
- Customer-focused with multiple product and financing options

Sunnova is potentially worse off given it does have a financial company balance sheet



ASSET-LIGHT BUSINESS MODEL

Focused on key value-added activities

- | | |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Do own the customer relationship | <input checked="" type="checkbox"/> Do not own trucks or installers |
| <input checked="" type="checkbox"/> Do own the software platform | <input checked="" type="checkbox"/> Do not own manufacturing |
| <input checked="" type="checkbox"/> Do own network of partnerships | <input checked="" type="checkbox"/> Do not have a financial company balance sheet |

[MarketWatch – March 13, 2017](#)

Solar company Sungevity files for bankruptcy, agrees to sell assets

[Sungevity: The Rise And Fall And Fall Again – April 1, 2020](#)

The formerly bankrupt and since reborn residential solar company abruptly laid off nearly 400 workers yesterday. For the third time in company history, a significant portion of the workforce was laid off with no warning. Now Sungevity's future is uncertain – yet again.



*Potentially Misleading Financial
Representation & Aggressive
Accounting*

Income Statement Does Not Represent A Leasing Business

Unlike other specialty finance businesses whose largest expense is interest, Sunnova lists interest expense below operating income/loss on the income statement. We believe treating interest as a non-operating expense completely ignores that capital and financing is its main business activity. As a result, we believe its current financial presentation does not accurately reflect its business.

Sunnova Income Statement

	Year Ended December 31,	
	2019	2018
	(in thousands)	
Revenue	\$ 131,556	\$ 104,382
Operating expense:		
Cost of revenue—depreciation	43,536	34,710
Cost of revenue—other	3,877	2,007
Operations and maintenance	8,588	14,035
General and administrative	97,986	67,430
Other operating income	(161)	(70)
Total operating expense, net	153,826	118,112
Operating loss	(22,270)	(13,730)
Interest expense, net	108,024	51,582
Interest expense, net—affiliates	4,098	9,548
Interest income	(12,483)	(6,450)
Loss on extinguishment of long-term debt, net—affiliates	10,645	—
Other (income) expense	880	(1)
Loss before income tax	(133,434)	(68,409)

Source: [NOVA 10-K](#)

Sunnova lists interest, a core operating expense and largest expense, below operating loss

Air Lease Income Statement

Results of Operations

	Year Ended	Year Ended	Year Ended
	December 31, 2019	December 31, 2018	December 31, 2017
	(in thousands, except share and per share amounts and percentages)		
Revenues			
Rental of flight equipment	\$ 1,916,869	\$ 1,631,200	\$ 1,450,735
Aircraft sales, trading, and other	100,035	48,502	65,645
Total revenues	2,016,904	1,679,702	1,516,380
Expenses			
Interest	397,320	310,026	257,917
Amortization of debt discounts and issuance costs	36,691	32,706	29,454
Interest expense	434,011	342,732	287,371
Depreciation of flight equipment	702,810	581,985	508,352
Selling, general, and administrative	123,653	97,369	91,323
Stock-based compensation	20,745	17,478	19,804
Total expenses	1,281,219	1,039,564	906,850
Income before taxes	735,685	640,138	609,530
Income tax (expense)/benefit ⁽¹⁾	(148,564)	(129,303)	146,622
Net income	587,121	510,835	756,152
Preferred stock dividends	(11,958)	—	—
Net income available to common stockholders	\$ 575,163	\$ 510,835	\$ 756,152

Source: [AL 10-K](#)

Air Lease, another leasing business, lists interest expense as the first line item on its income statement

Where Should Investors Focus?

Given Sunnova's poor underlying financial performance and poor cash flow profile, we believe management is attempting to shift investors focus to positive reported Adjusted EBITDA and growth of contracted customer value (CCV). Spruce Point believes investors should place little, if any, confidence in these metrics as Adjusted EBITDA is not an accurate representation of Sunnova's business and CCV relies heavily on management's assumptions.

Metric	Adjusted EBITDA	Contracted Customer Value
Company Portrayal	Adjusted EBITDA provides a measure of core financial performance	<i>"Both our GCCV and our NCCV are experiencing significant increases year-over-year, and this translates directly into shareholder value creation."</i> - William Berger, CEO (Q2 2020 Earnings Call)
Spruce Point's View	<u>We believe this is an inaccurate measure.</u> EBITDA is not the correct metric for a specialty finance business as it excludes core expenses of interest and depreciation	Metric relies heavily on various management assumptions (life of service agreements, renewal and cancellation rates, production capacity and performance, hours of sun, required repairs, contracted electricity rates, discount rates) to project value of 25+ year contacts when the Company only has 7 years of historical data to create its model

We Believe Adjusted EBITDA Is Not Where Investors Should Be Focused

According to a former Sunnova executive and other industry experts, Adjusted EBITDA is not the correct metric to evaluate the business and core earnings (interest income – interest expense – operating expenses) is a better metric. We believe the market may be incorrectly analyzing the performance of Sunnova’s business by using Adjusted EBITDA. In addition, a recent SEC Comment Letter shows evidence of aggressive use and calculation of Adjusted EBITDA⁽¹⁾. We believe core earnings paints an accurate and different picture.

Is Adjusted EBITDA the correct way to evaluate Sunnova’s financial performance?

Former
Sunnova
Executive

“No, it's not. What you'll see used is a traditional specialty finance company investment model where you use core earnings. All specialty finance companies and really all banks use core earnings.”

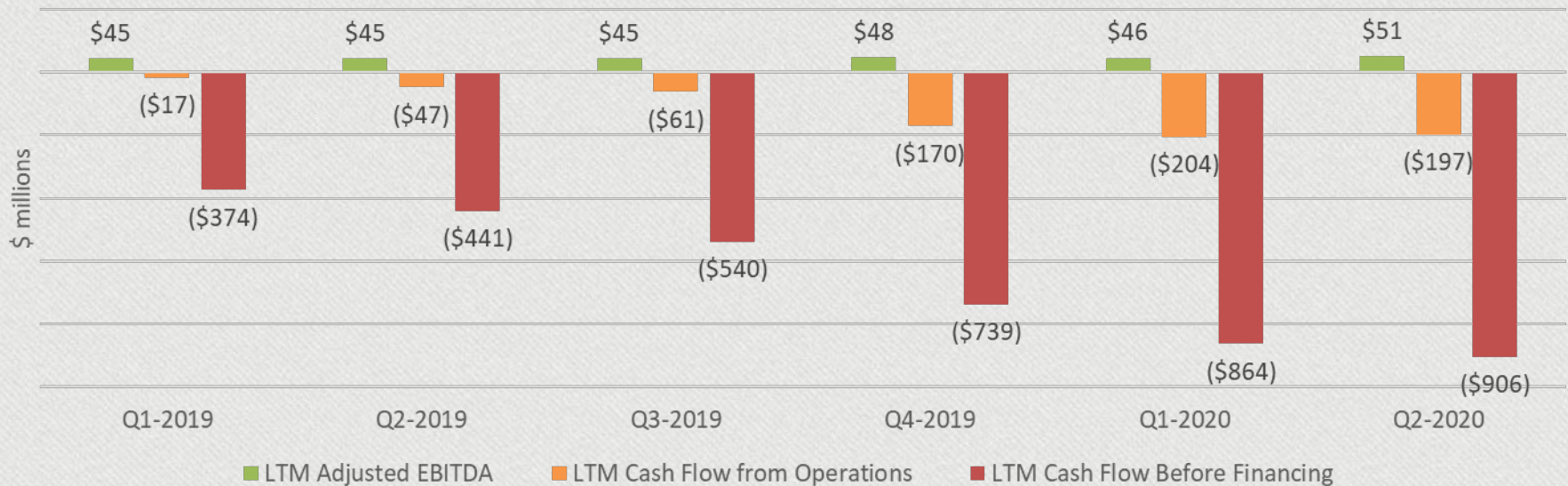
“Core earnings takes all interest income, subtracts interest expense, subtracts operating expenses and then divides that by equity and that is what the core return on equity and that's how these businesses really get valued.”

1) [SEC.gov](https://www.sec.gov)

We Believe Adjusted EBITDA Appears Misleading

Sunnova points investors to Adjusted EBITDA as a key metric to evaluate financial performance, while key public competitors Sunrun and Vivint Solar do not report EBITDA. Spruce Point believes EBITDA does not accurately reflect Sunnova's financial performance and paints an overly optimistic picture of the business. As Sunnova's operating and cash flow before financing continues to decline, Adjusted EBITDA remains flat.

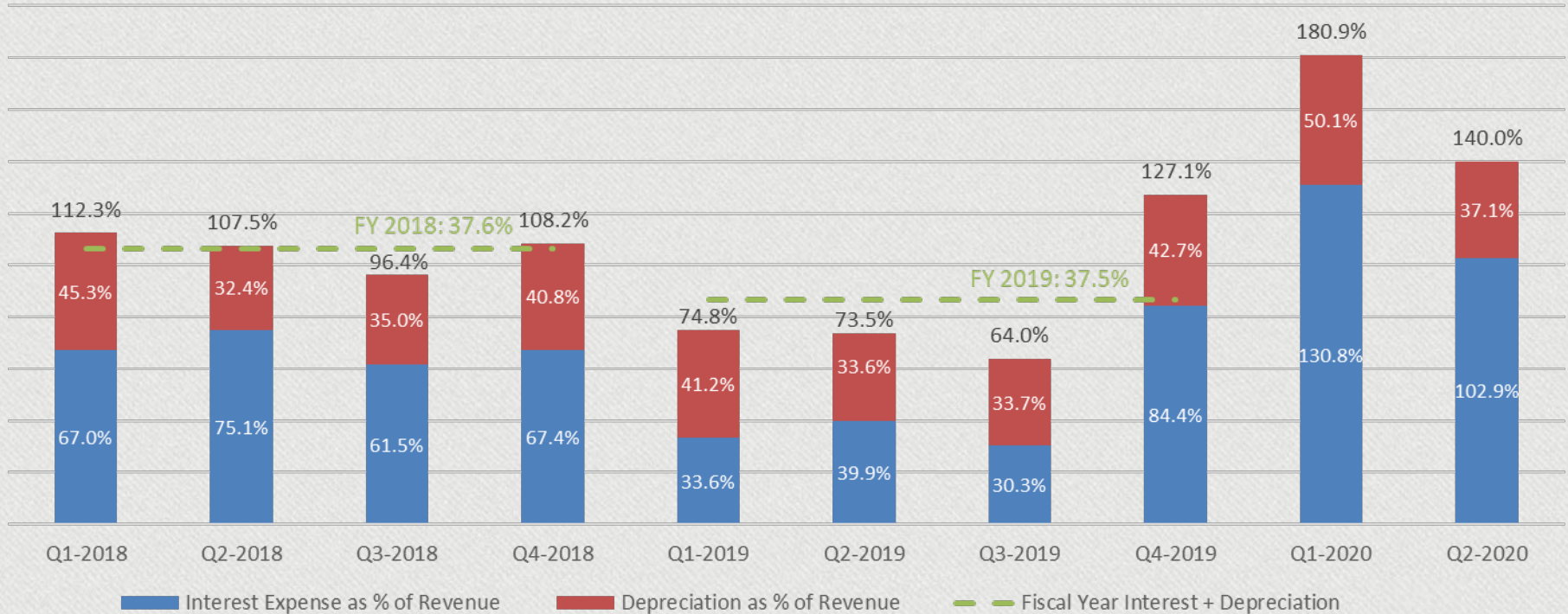
Adjusted EBITDA Relative To Cash Flow



Interest & Depreciation Exceed Revenue

While Sunnova presents Adjusted EBITDA to investors, treating interest and depreciation as non-core expenses, interest plus depreciation exceeds the Company revenue. Sunnova, a cash-burning, capital insensitive business becomes profitable on an “Adjusted EBITDA” basis.

Interest Expense & Depreciation As % Of Revenue



Note: Interest expense adjusted for effect of interest rate swaps
Source: Company filings

Interest & Depreciation Expenses Are Core To NOVA's Business

We believe the Company and investors should consider interest and depreciation as core operating expenses of Sunnova's business. NOVA's 10K states Adjusted EBITDA is useful to measure core financial performance, while omitting core expenses of the Company's business. We believe Adjusted EBITDA, traditionally used as a proxy for operating cash flow, is not a fair representation of Sunnova's operating cash flow. Using Adjusted EBITDA provides NOVA with the benefit of not accounting for true core operating expenses.

NOVA
2019 10K

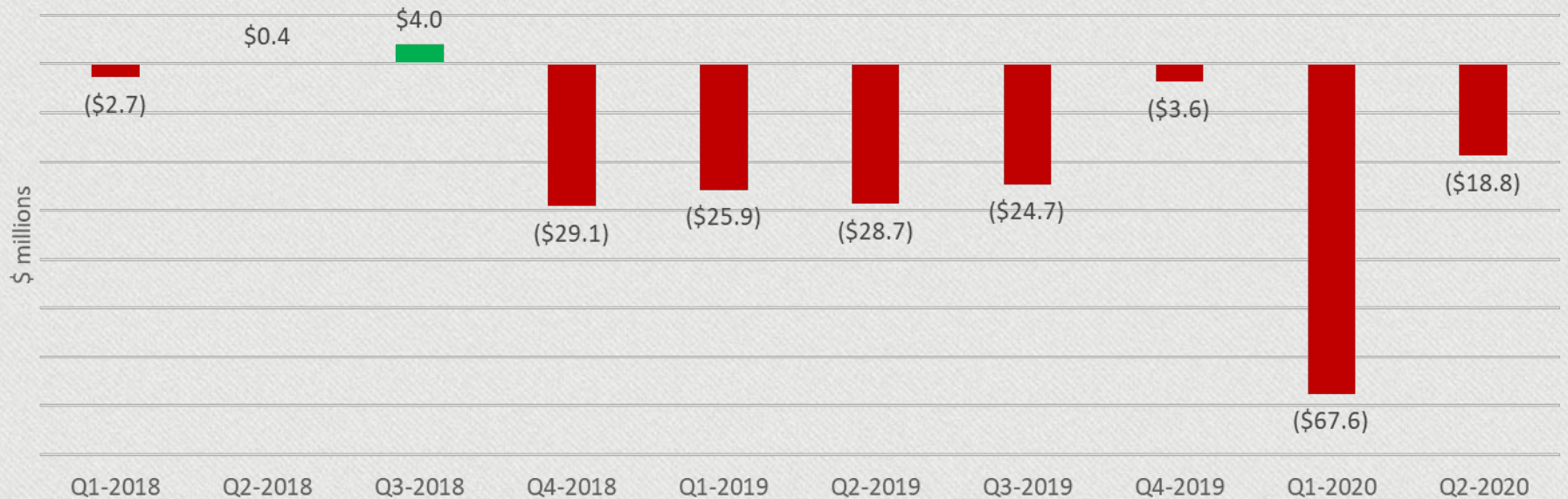
*"We believe Adjusted EBITDA is useful to management, investors and analysts in **providing a measure of core financial performance** adjusted to allow for comparisons of results of operations across reporting periods on a consistent basis. **These adjustments are intended to exclude items that are not indicative of the ongoing operating performance of the business.** Adjusted EBITDA is also used by our management for internal planning purposes, including our consolidated operating budget, and by our Board in setting performance-based compensation targets."*

	Interest Expense	Depreciation Expense
Current Method	The installation of these solar systems are primarily financed with debt, the interest is treated as traditional interest and not a core expense	Sunnova invests in solar systems, records the asset on its balance sheet and depreciates them over 35 years. As a result, this core expense is only recorded as an investing cash outflow
Spruce Point's View	<p>Interest expense is core to NOVA's operating business, as the Company relies on debt to finance purchases of solar systems that are then leased to customers</p> <p>Adding back interest expense associated with its leasing business artificially inflates the metric as a proxy for operating cash flow</p>	<p><u>Sunnova deflects investors from capex, instead focusing on adjusted operating cash flow. Capex is depreciated over time</u></p> <p>Depreciation expense is added back to net loss on the basis that depreciation is a non-cash expense, however in NOVA's case, it is a core operating expense. Using EBITDA as a proxy for operating cash flow ignores this true operating expense that is a negative drag on cash</p>

Core Earnings Show An Accurate Picture

We believe core earnings is a more accurate metric to measure the financial performance of a specialty finance business. Sunnova's core earnings have continued to decline, and we believe it is unlikely NOVA will ever be able to maintain a sustained level of profitability.

Core Earnings



Contracted Customer Value

Net Contracted Customer Value is the difference between the total lifetime value of installed solar projects (leases, PPAs and loans) and the costs (debt and tax equity) needed to finance those projects. It is important to note given Sunnova was founded in 2013, the Company only has 7 years of data to estimate the performance of 25 year contracts.

How can Sunnova accurately project Gross Contracted Customer Value with any certainty given the number of variables and limited amount of data over the past 7 years?

Contracted Customer Value Calculation

Estimated Gross Contracted Customer Value

Less: Debt

Plus: Cash and Restricted Cash

Plus: Construction in Progress

Estimated Net Contracted Customer Value

Estimated based on various unproven assumptions

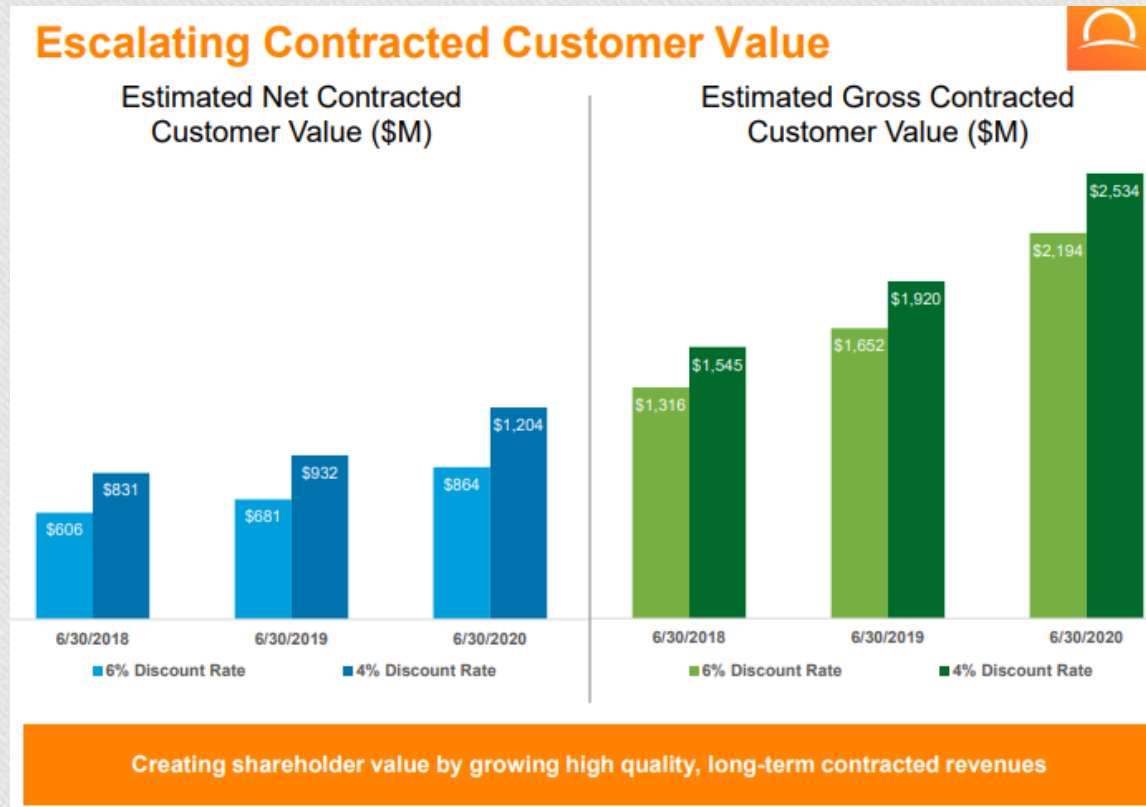
Finite Values

Net Contracted Customer Value is a function of:

- The life of our solar service agreements
- Cancellation rates
- Default rates
- Production capacity and performance of the solar equipment installed
- Expected sun hours
- Retail price of utility-generated electricity
- Required repairs and maintenance
- Contracted electricity rates
- Operating and administrative expenses
- Availability of debt and tax equity financing
- Long-term interest rates and level of inflation
- Cost of debt
- Cost of equity
- Proper discount rates
- Changes in regulation, etc.

Contracted Customer Value

Management presents Gross and Net Contracted Customer Value (CCV) as a key metric to evaluate Sunnova. As seen in the Company's investor presentation, a slight change in the discount rate from 6% to 4% results in a \$340 million difference to Gross and Net CCV (a ~15% and ~40% difference). With such slight changes to numerous assumptions, how can this metric be predicted with any confidence?



Source: [Investor Presentation](#)

Auditor Does Not Sign Off On Metric

In Spruce Point's experience, it is unusual for a Company to disclaim that an auditor has not reviewed or audited non-GAAP operational metrics outside of the financial statements. According to the Company's risk factor disclosure, PwC has not audited or reviewed Sunnova's Contracted Customer Value metric. Spruce Point believes investors should be concerned by a possible lack of confidence in this crucial performance metric by auditor.

Certain of our key operational metrics, including estimated gross contracted customer value, are based on various assumptions and estimates we make over an extended period of time. Actual experience may vary materially from these estimates and assumptions and therefore undue reliance should not be placed on these metrics.

Our key operational metrics include a number of assumptions and estimates we make over an extended period of time (up to 35 years) and may not prove accurate. In calculating estimated gross contracted customer value, we estimate projected monthly customer payments over the remaining life of our solar service agreements, which are typically 25 years in length with an opportunity for customers to renew for up to an additional 10 years, and from the future sale of related SRECs. These estimated future cash flows depend on various factors including but not limited to solar service agreement type, contracted rates, customer loss rates, expected sun hours and the projected production capacity of the solar equipment installed. Additionally, in calculating estimated gross contracted customer value we also estimate cash distributions to tax equity fund investors and operating, maintenance and administrative expenses associated with the solar service agreements, including expenses related to accounting, reporting, audit, insurance, maintenance and repairs over the remaining life of our solar service agreements.

Furthermore, in calculating estimated gross contracted customer value, we discount our future net cash flows at 6% based on industry practice and the interest rate on certain recent securitizations. This discount rate might not be the most appropriate discount rate based on interest rates in effect from time to time and industry or company-specific risks associated with these cash flows and the appropriate discount rate for these estimates may change in the future due to the level of inflation, rising interest rates, our cost of capital, customer default rates and consumer demand for solar energy systems, among other things. We also assume customer losses of 0% in calculating these metrics even though we expect to have some minimal level of customer losses over the life of our contracts. To illustrate the way in which actual results may change, we present sensitivities around the discount rate and the rate of customer losses, although these sensitivities may not capture the most appropriate discount rate or the rate of customer losses we will experience. For a discussion of estimated gross contracted customer value and the related discount rate, see "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Financial and Operational Metrics—Estimated Gross Contracted Customer Value*".

PricewaterhouseCoopers LLP has not audited, reviewed, examined, compiled nor applied agreed-upon procedures with respect to these operational metrics or their components. The estimates discussed above are based on a combination of assumptions that may prove to be inaccurate over time. Such inaccuracies could be material, particularly given the estimates relate to cash flows up to 35 years in the future.

Gross Margin Is Worse Than Appears

Not only is GAAP gross margin decreasing, but this metric does not show the complete picture of the Company's true cost of revenue. Sunnova's largest cost of revenue is the interest expense required to fund its financing business. By including interest expense in the calculation of gross margin, NOVA's true gross margin is substantially lower than its GAAP gross margin and negative over many periods.

	Quarterly				Annual	Quarterly				Annual	Quarterly	
	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020
<i>\$ in millions</i>												
Revenue (A)	\$20	\$29	\$30	\$25	\$104	\$27	\$35	\$37	\$34	\$132	\$30	\$43
Plus: Interest Income	--	\$1	\$2	\$2	\$6	\$2	\$3	\$3	\$4	\$12	\$5	\$7
Spruce Point Adj. Revenue (B)	\$20	\$30	\$32	\$27	\$111	\$29	\$38	\$40	\$37	\$144	\$34	\$49
Cost of Revenue – Depreciation	(\$8)	(\$8)	(\$9)	(\$9)	(\$35)	(\$10)	(\$10)	(\$11)	(\$13)	(\$44)	(\$13)	(\$14)
Cost of Revenue – Other	--	--	(\$1)	(\$1)	(\$2)	(\$1)	(\$1)	(\$1)	(\$1)	(\$4)	(\$1)	(\$3)
GAAP Cost of Revenue (C)	(\$8)	(\$9)	(\$10)	(\$10)	(\$37)	(\$10)	(\$11)	(\$12)	(\$14)	(\$47)	(\$14)	(\$17)
Less: Total Interest Expense, net	(\$6)	(\$13)	(\$12)	(\$29)	(\$61)	(\$33)	(\$39)	(\$32)	(\$8)	(\$112)	(\$67)	(\$31)
Spruce Point Adj. Cost of Revenue (D)	(\$15)	(\$22)	(\$22)	(\$39)	(\$98)	(\$44)	(\$50)	(\$44)	(\$22)	(\$160)	(\$81)	(\$47)
GAAP Gross Profit (A-C)	\$12	\$20	\$20	\$15	\$68	\$16	\$23	\$24	\$20	\$84	\$16	\$26
Spruce Point Adj. Gross Profit (B-D)	\$5	\$9	\$10	(\$11)	\$13	(\$15)	(\$13)	(\$4)	\$15	(\$15)	(\$47)	\$2
GAAP Gross Margin	58.3%	69.9%	67.3%	61.2%	64.8%	61.4%	67.3%	66.9%	59.3%	64.0%	53.0%	60.5%
Spruce Point Adj. Gross Margin	26.5%	28.2%	32.4%	(41.2%)	11.7%	(49.9%)	(33.5%)	(9.2%)	41.3%	(10.8%)	(136.1%)	4.1%

Note: Figures may not add due to rounding
 Source: Company filings

Gross margin has transitioned from mostly positive to mostly negative

Sunnova's Adjusted Operating Cash Flow Is Not Representative Of True Operating Cash Flow

Spruce Point believes Sunnova's adjusted operating cash flow is not reflective of the nature of Sunnova's financing business. We believe items such as dealer exclusivity payments and prepaid inventory should not be added back to cash flow as they are true operating costs of the business. In addition, Sunnova ignores financing transaction costs despite financing being core to its business. When adjusting for these items, Sunnova's cash flow profile appears much worse than the Company reports.

	Annual	Quarterly				Annual	Quarterly				Annual	Quarterly	
<i>\$ in millions</i>	FY 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020
Sunnova Reported Operating Cash Flow	(\$49)	(\$19)	(\$1)	(\$5)	\$14	(\$12)	(\$24)	(\$31)	(\$19)	(\$96)	(\$170)	(\$58)	(\$25)
Principal Proceeds from Customer Notes Receivable	\$3	\$2	\$2	\$2	\$2	\$8	\$4	\$6	\$5	\$8	\$22	\$7	\$8
Financed Insurance Payments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$2)	(\$0)
Derivative Breakage Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$31	\$6
Distribution to Redeemable NCI	(\$0)	(\$0)	(\$0)	(\$1)	(\$1)	(\$2)	(\$4)	(\$1)	(\$1)	(\$1)	(\$8)	(\$1)	(\$1)
Payments to Dealers for Exclusivity	\$0	\$0	\$0	\$0	\$0	\$0	\$2	\$20	\$10	\$0	\$32	\$5	\$11
Inventory and Prepaid Inventory Purchases	\$2	\$3	\$2	\$2	\$7	\$14	\$4	\$5	\$3	\$115	\$128	(\$2)	\$20
Payments of Noncapitalized Costs Related to IPO	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4	\$1	\$5	\$0	\$0
Sunnova Adjusted Operating Cash Flow	(\$45)	(\$15)	\$3	(\$1)	\$22	\$8	(\$18)	(\$2)	\$2	\$27	\$8	(\$20)	\$19
Less: Derivative Breakage Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$31)	(\$6)
Less: Payments to Dealers for Exclusivity	\$0	\$0	\$0	\$0	\$0	\$0	(\$2)	(\$20)	(\$10)	\$0	(\$32)	(\$5)	(\$11)
Less: Inventory and Prepaid Inventory Purchases	(\$2)	(\$3)	(\$2)	(\$2)	(\$7)	(\$14)	(\$4)	(\$5)	(\$3)	(\$115)	(\$128)	\$2	(\$20)
Less; Payments of Deferred Financing Costs	(\$28)	(\$1)	(\$0)	(\$1)	(\$7)	(\$9)	(\$5)	(\$2)	(\$3)	(\$2)	(\$12)	(\$11)	(\$6)
Less: Payments of Debt Discounts	(\$0)	\$0	(\$0)	(\$2)	(\$1)	(\$2)	(\$1)	(\$1)	\$0	\$0	(\$1)	(\$0)	(\$3)
Less: Payments of Costs Related to Redeemable NCI	(\$3)	(\$1)	(\$0)	(\$0)	(\$1)	(\$2)	(\$1)	(\$1)	(\$2)	(\$2)	(\$5)	(\$1)	(\$1)
Spruce Point Adjusted Operating Cash Flow	(\$77)	(\$19)	\$0	(\$6)	\$7	(\$18)	(\$31)	(\$30)	(\$16)	(\$92)	(\$170)	(\$67)	(\$28)
Delta	(\$33)	(\$4)	(\$3)	(\$5)	(\$15)	(\$27)	(\$13)	(\$28)	(\$17)	(\$119)	(\$178)	(\$47)	(\$47)

Inventory Operating Cash Flow Adjustments Frequently Change, Undermine Confidence

Sunnova adds back “Inventory and Prepaid Inventory Purchases” to its adjusted operating cash flow. Spruce Point disagrees with this as: 1) None of Sunnova’s solar peers have reported inventory add-backs to operating cash flow, 2) The Company provides no disclosure to its rationale for such an add-back, and 3) Since going public in July 2019, the Company has used four (4) different inventory line item disclosure classifications on its adjusted operating cash flow bridge. The table below illustrates these murky changes. We believe investors should have little confidence in the quality of Sunnova’s inventory adjustments and presentation of financials given such frequent changes. Notably, the inclusion of prepaid inventory provides Sunnova greater flexibility to increase Adjusted Operating Cash Flow by a material amount in 2019.

<i>\$ in millions</i>	Annual	Quarterly				Annual	Quarterly				Annual	Quarterly	
	FY 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2018	FY 2019	Q1 2020	Q2 2020
Inventory Purchases	--	\$5.4 ⁽¹⁾		\$1.9	--	--	\$9.5 ⁽¹⁾		\$3.1	--	--	--	--
Inventory and Prepaid Inventory Purchases	\$1.9	--	--	--	\$7.0	\$14.3	--	--	--	\$115.3	\$127.8	--	--
Net Inventory and Prepaid Inventory (Sales) Purchases	--	--	--	--	--	--	\$3.0	--	--	--	--	(\$1.6)	--
Net Inventory and Prepaid Inventory Purchases	--	--	--	--	--	--	\$3.0	\$4.2	--	--	--	(\$1.6)	\$19.6

Bloated Prepaid Inventory Raises Concerns

Spruce Point observes that Sunnova has engaged in a highly aggressive business practice related to prepaid inventory purchases which we believe has provided an unsustainable benefit to recent results. Sunnova added \$96m of prepaid inventory at year end 2019 before the tax credit was reduced from 30% to 22%. This amount, relative to its LTM sales, is more than 3x its peers.

	<i>\$ in millions</i>	12/31/18	3/31/19	6/30/19	9/30/19	12/31/19	3/31/20	6/30/20
Sunnova	Inventory	\$9.2	--	\$16.5	\$17.1	\$43.7	\$115.1	\$120.8
	Prepaid Inventory	\$0.0	--	\$0.0	\$0.0	\$96.2	\$17.1	\$0.0
	Total Inventory	\$9.2	--	\$16.5	\$17.1	\$139.9	\$132.2	\$120.8
	LTM Sales	\$104.4	\$111.3	\$117.0	\$123.1	\$131.6	\$134.7	\$142.8
	Total Inventory / LTM Sales	0.09x	--	0.14x	0.14x	1.06x	0.98x	0.85x
Sunrun	Inventory	\$79.5	\$76.2	\$89.8	\$109.8	\$128.0	\$133.0	\$113.8
	Prepaid Inventory	\$0.0	\$0.0	\$0.0	\$0.0	\$132.6	\$124.6	\$96.7
	Total Inventory	\$79.5	\$76.2	\$89.8	\$109.8	\$260.6	\$257.6	\$210.5
	LTM Sales	\$760.0	\$810.1	\$844.2	\$854.8	\$858.6	\$874.8	\$851.5
	Total Inventory / LTM Sales	0.10x	0.09x	0.11x	0.13x	0.30x	0.29x	0.25x
Vivint Solar	Inventory	\$13.3	\$11.5	\$13.1	\$13.7	\$20.6	\$14.4	\$13.1
	Prepaid Inventory	\$0.0	\$0.0	\$0.0	\$0.0	\$50.1	\$0.0	\$0.0
	Total Inventory	\$13.3	\$11.5	\$13.1	\$13.7	\$70.7	\$14.4	\$13.1
	Solar Energy System Inventory	\$32.2	\$34.5	\$30.4	\$29.7	\$38.4	\$80.8	\$63.8
	Adjusted Inventory	\$45.5	\$46.0	\$43.5	\$43.4	\$109.1	\$95.1	\$77.0
	LTM Sales	\$290.3	\$291.4	\$301.4	\$327.4	\$341.0	\$362.8	\$378.5
	Total Inventory / LTM Sales	0.16x	0.16x	0.14x	0.13x	0.32x	0.26x	0.20x

Spruce Point finds Sunnova's use of the weighted-average method for inventory to be aggressive relative to Sunrun and Vivint Solar's use of first-in-first-out (FIFO). As the costs of solar systems inputs (PV modules, batteries, meters) decline overtime, the use of the weighted-average method lowers Sunnova's cost of goods sold relative to its peers. This increases Sunnova's near-term earnings and is another example of Sunnova's aggressive accounting practices.

sunnova

Inventory

Inventory primarily represents energy storage systems, photovoltaic modules, inverters, meters and other associated equipment purchased and held for use as original parts on new solar energy systems or replacement parts on existing solar energy systems. We record inventory in other current assets in the consolidated balance sheets at the lower of cost and net realizable value. We remove these items from inventory using the weighted-average method and (a) expense to operations and maintenance expense when installed as a replacement part for a solar energy system or (b) capitalize to property and equipment when installed as an original part on a solar energy system. We evaluate our inventory reserves and write down the estimated value of excess and obsolete inventory based upon assumptions about future demand and market conditions. The following table presents the detail of inventory as recorded in other current assets in the consolidated balance sheets:

sunrun

Inventories

Inventories are stated at the lower of cost or net realizable value on a first-in, first-out basis. Inventories consist of raw materials such as photovoltaic panels, inverters and mounting hardware as well as miscellaneous electrical components that are sold as-is by the distribution operations and used in installations and work-in-process. Work-in-process primarily relates to solar energy systems that will be sold to customers, which are partially installed and have yet to pass inspection by the responsible city or utility department. For solar energy systems where the Company performs the installation, the Company commences transferring component parts from inventories to construction-in-progress, a component of solar energy systems, once a lease contract with a lease customer has been executed and the component parts have been assigned to a specific project. Additional costs incurred including labor and overhead are recorded within construction in progress.

vivint.Solar

Inventories

Inventories include solar energy systems under construction that have yet to be interconnected to the power grid and that will be sold to customers. Inventory is stated at the lower of cost, on a first-in, first-out ("FIFO") basis, or net realizable value. Upon interconnection to the power grid, solar energy system inventory is removed using the specific identification method. Inventories also include components related to photovoltaic installation products and are stated at the lower of cost, on an average cost basis, or net realizable value. The Company evaluates its inventory reserves on a quarterly basis and writes down the value of inventories for estimated excess and obsolete inventories based on assumptions about future demand and market conditions. See Note 4—Inventories.



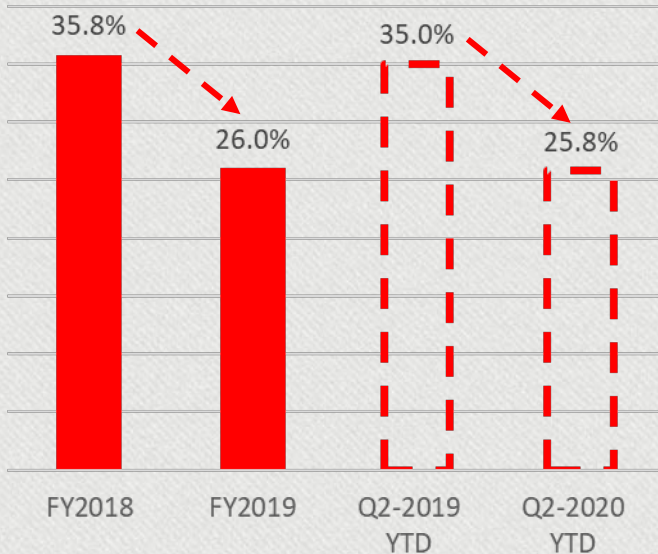
Poor Underlying Performance

Revenue Growth Decelerating

We observe slowing reported revenue growth as the solar financing market remains highly competitive with little differentiation between companies' offerings. Sunnova is not immune from the industry pressure and the recent cost driven Sunrun / Vivint Solar deal signals lower future revenue growth. Despite Y-o-Y revenue growth in Q2 2020, YTD revenue growth follows the greater trend, down from 35% to ~26% Y-o-Y.

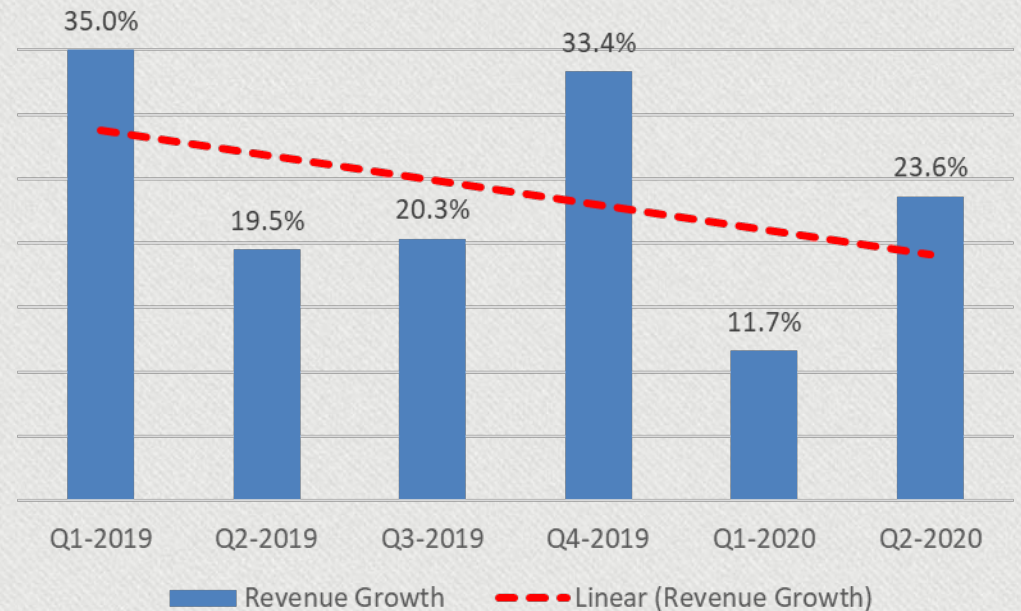
Revenue Growth

FY2019 and YTD revenue growth is slowing



Y-o-Y Quarterly Revenue Growth

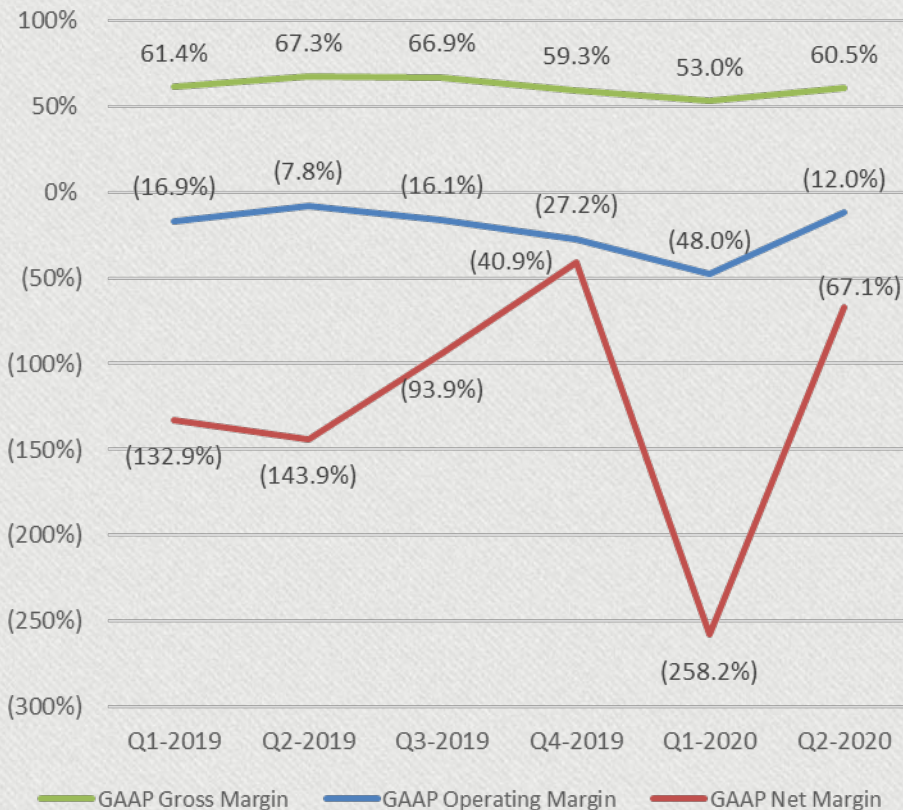
While Q2 2020 revenue was up Y-o-Y, we believe this was due to the catchup after a weak Q1



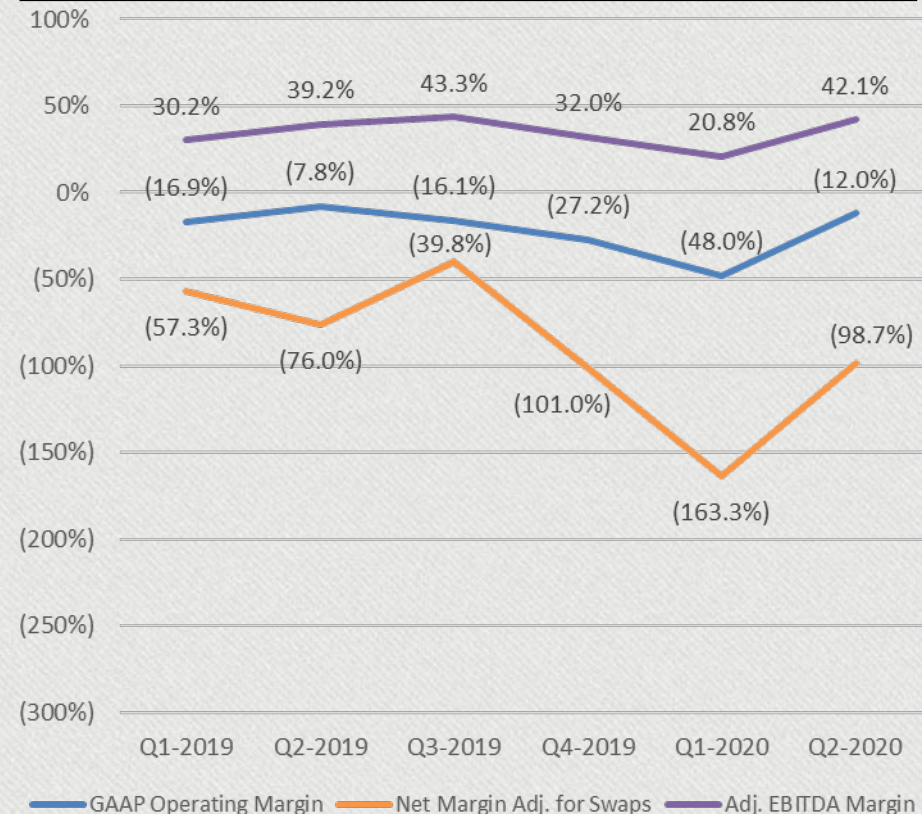
Margins Worsening

As GAAP gross margins have declined, the Company's poor financial performance is shown by its negative operating and net margins. However, the Company's non-GAAP adjustments create the illusion of Sunnova being a profitable business with high Adjusted EBITDA margins.

GAAP Margins



Adjusted Margins



Continuous Need To Raise Capital

Sunnova offers an undifferentiated business model that relies on access to capital markets to support its unprofitable underlying business. The Company generates negative operating cash flow, even before the negative adjustments for working capital. As Sunnova grows its topline revenue, its cash flow profile continues to worsen. As balance sheet leverage grows, the economics of the business are stripped out by the debt holders (through interest and debt payments) and tax equity holders (who gain from the favorable tax benefits solar investments offer). Sunnova is essentially a financial engineered platform that benefits debt holders and tax equity investors who receive all of any generated cash flows. In addition, management and early equity holders benefit as they are able to exit stakes at what we believe to be a currently inflated stock price. Long-term equity holders are last in line and look to be left with an overleveraged, cash draining business, highly dependent on management's optimistic assumptions.

	Annual	Quarterly				Annual	Quarterly				Annual	Quarterly	
<i>\$ in millions</i>	FY 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020
Operating Cash Flow Before Working Capital	(\$36)	(\$9)	\$2	\$3	\$9	\$5	(\$10)	(\$9)	(\$0)	\$2	(\$18)	(\$41)	(\$6)
Less: Working Capital Adjustment	(\$13)	(\$11)	(\$3)	(\$8)	\$5	(\$17)	(\$14)	(\$22)	(\$18)	(\$98)	(\$152)	(\$17)	(\$18)
Operating Cash Flow	(\$49)	(\$19)	(\$1)	(\$5)	\$14	(\$12)	(\$24)	(\$31)	(\$19)	(\$96)	(\$170)	(\$58)	(\$25)
Less: Capital Expenditures	(\$241)	(\$61)	(\$63)	(\$60)	(\$68)	(\$253)	(\$69)	(\$96)	(\$134)	(\$132)	(\$431)	(\$141)	(\$133)
Plus: Other Investing Cash Flows ⁽¹⁾	\$49	\$23	\$24	\$28	\$21	\$96	\$24	\$29	\$38	\$47	\$137	\$43	\$40
Cash Flow Before Financing	(\$338)	(\$104)	(\$89)	(\$93)	(\$75)	(\$360)	(\$117)	(\$156)	(\$191)	(\$274)	(\$739)	(\$242)	(\$198)

1) Includes Payments and customer notes receivable, Proceeds from customer notes receivable, State utility rebates, and Other

Note: Figures may not add due to rounding

Source: Company filings



Corporate Governance Concerns & Bearish Insider Activity

Major Shareholders Exiting Sunnova

Energy Capital Partners (ECP), an energy focused private equity and credit fund, is Sunnova's largest shareholder, holding ~44% of shares outstanding in March. In July 2020, ECP sold 4.7 million shares or ~13% of its stake for \$16.50 per share, a 5.8% discount to NOVA's closing price. On August 13th, 2020, Sunnova announced another secondary offering of 10 million shares at \$25 per share, an 11% discount to NOVA's closing price. Spruce Point projects the August sale will reduce ECP's stake by 24%. Newlight Partners, Nova's second largest shareholder previously representing over 11% of shares outstanding, sold 2.1 million shares on August 4th, a 21% decline in its position.

SUNNOVA ANNOUNCES PRICING OF SECONDARY OFFERING OF SHARES OF COMMON STOCK

July, 01, 2020

HOUSTON--(BUSINESS WIRE)-- Sunnova Energy International Inc. ("Sunnova") (NYSE: NOVA) today announced the pricing of its underwritten public offering (the "Offering") of 6,076,890 shares of Sunnova's common stock by certain of our stockholders, including affiliates of Energy Capital Partners (collectively, the "Selling Stockholders") at \$16.50 per share. Certain of the Selling Stockholders have granted the underwriters a 30-day option to purchase an additional 911,533 shares of common stock. Sunnova is not offering any shares of its common stock in the Offering and will not receive any proceeds from the sale of shares by the Selling Stockholders in the Offering.

Source: [Press Release](#)

SUNNOVA ANNOUNCES PRICING OF SECONDARY OFFERING OF SHARES OF COMMON STOCK

August, 13, 2020

HOUSTON--(BUSINESS WIRE)-- Sunnova Energy International Inc. ("Sunnova") (NYSE: NOVA) today announced the pricing of its underwritten public offering (the "Offering") of 10,000,000 shares of Sunnova's common stock by certain of its stockholders, including affiliates of Energy Capital Partners (collectively, the "Selling Stockholders"), at \$25.00 per share. Certain of the Selling Stockholders have granted the underwriters a 30-day option to purchase an additional 1,500,000 shares of common stock. Sunnova is not offering any shares of its common stock in the Offering and will not receive any proceeds from the sale of shares by the Selling Stockholders in the Offering.

Source: [Press Release](#)

We believe an increase in the discount of the secondary offering from 5.8% to 11% shows increasing investor skepticism as the largest shareholder continues selling shares

Energy Capital Partners Holdings

	Common Stock Held	Change In Position Size	% of Shares Outstanding
March 2020 Holdings	36.9m	--	43.9%
July Sale	(4.7m)	(12.8%)	--
July 2020 Holdings	32.1m	--	37.8%
Projected August Sale ⁽¹⁾	(7.7m)	(24.0%)	--
Projected August 2020 Holdings	24.4m	--	28.7%

1) Spruce Point assumption of ECP represents an equal percentage of shares in August offering as July offering

Source: Capital IQ

ECP provided Sungevity with project financing in 2013. The loan was repaid in December 2016, three months before the Company filed for bankruptcy protection. ECP exited Sungevity at the perfect time. We believe it is wise to follow the activity of insiders.

Sungevity

In January 2013, Energy Capital provided Sungevity with project financing from its Mezzanine Opportunities Fund. Sungevity was a distributed solar company focused on the residential market providing customers with 20-year leases which has since changed strategy. ECP's loan was repaid in December 2016.

Source: [Energy Capital Partners](#)

Sungevity Cuts Staff by Two-Thirds as Downward Spiral Continues

This round of layoffs didn't come with severance pay.

JULIAN SPECTOR | MARCH 09, 2017

Source: [Greentech Media](#)

Sungevity files for Chapter 11 bankruptcy

By **Kelsey Misbrener** | March 14, 2017

Source: [Solar Power World](#)

Selling Should Accelerate As Lockup Expires

As Sunnova's lockup expires, Spruce Point believes insiders will be anxious to reduce their positions at today's inflated valuation. We have already seen the beginning of this as Energy Capital Partners continues reducing the size of its position. A former Sunnova executive told us he believes Sunnova is "very expensive" on a free cash flow and relative valuation basis.

Former
Sunnova
Executive

"It feels very expensive to me. If you go through the three methodologies, valuing the cash flows, on a relative value basis and the third thing is what its worth on a price to book basis if you were to think about it as a financing company. In all three metrics, it's quite expensive."

History Of Sunnova's CEO

Sunnova was founded by William J. (John) Berger after he previously founded SunCap Financial, a residential solar service provider and Standard Renewable Energy, a provider and installer of renewable energy and energy-efficient products and services. According to his LinkedIn profile, Berger spent the first 5 years of his career at Enron until the firm collapsed in 2001. Berger was Director of Enron Energy Services, a division headed by Lou Pai. Pai has been referred to as Enron's "invisible CEO" and one of the "brightest brains" at Enron who helped Jeffrey Skilling turn Enron into the fast-paced energy-trading firm it was before its collapse.⁽¹⁾ Berger's biography on Sunnova's website does not mention his stint at Enron, where he started his career and most likely received his formative education and training in business.


Why doesn't his bio include his stint at Enron?



William J. (John) Berger

Chairman, President and CEO

Mr. Berger founded Sunnova in 2012 and has since then served as Chief Executive Officer, President and Chairman of the Board. With more than two decades of experience in the electric power industry, Mr. Berger is an energy entrepreneur who has always supported free market competition, consumer choice and the advancement of energy technology to power energy independence. Before Sunnova, Mr. Berger served as Founder and Chief Executive Officer at SunCap Financial, a residential solar service provider. He also founded Standard Renewable Energy, a provider and installer of renewable energy and energy-efficient products and services. Mr. Berger received his Masters of Business Administration from Harvard Business School and graduated cum laude from Texas A&M University with a Bachelor of Science degree in civil engineering.

Source: [Company Website](#)



	Director Enron Energy Services 2000 – 2001 · 1 yr Energy technology and renewable energy strategic investments
	Manager Enron Capital & Trade 1996 – 2000 · 4 yrs East Power Trading

Source: [LinkedIn](#)

1) [NPR.org](#)
Source: Company filings

Audit Chair With History At Kinder Morgan, Begins To Sell Shares

On Friday September 25th, 2020, Audit Chairman C. Park Shaper disclosed a 10b-1 sock sale program effective August 24th. Mr. Shaper came from Kinder Morgan, a Company formed by ex-Enron executives and has been criticized by some as a “house of cards”.⁽¹⁾ While Mr. Shaper was President of various Kinder Morgan entities, a lawsuit was brought, and settled, that Kinder Morgan improperly shifted expenses to inflate payout to itself. In addition, during Mr. Shaper’s tenure as CFO, Kinder Morgan Energy partners received an informal SEC probe into its acquisition accounting for Tejas Gas. Spruce Point observes Kinder Morgan reshuffled the purchase price allocation three (3) times and Tejas cost investors 18% more than its initial \$750m purchase price, due in part to escalating liabilities. Goodwill ascribed to the transaction ballooned from \$0 to \$152 million. No SEC charges were ever brought.

[Bloomberg – August 14th, 2015](#)

Kinder Morgan Pays \$27.5 Million to End Inflated Payout Case

[Midland Reporter-Telegram – May 4th, 2003](#)

Kinder Morgan announces informal SEC probe of pipeline group

The Houston-based company, operated by Kinder Morgan Inc. through its general partner interest, said the SEC is examining disclosures regarding the allocation of purchase price between assets and goodwill in the acquisition. The SEC “has not asserted that KMP has acted improperly or illegally,” and Kinder Morgan Energy Partners is cooperating with the inquiry, the company said.

1) [National Observer](#)
Source: KMI SEC filings

Finance Executives' Time At Spark Energy

Sunnova's CFO and VP of Finance previously were executives at Spark Energy, another energy company with a poor business model promoting high growth, which ended up collapsing. Spark touted its sophisticated customer acquisition model and "customer lifetime value strategy." Spark had a history of regulatory issues^(1,2) under CFO Robert Lane's leadership. Spark's shares fell ~40% during Lane's tenure as CFO and fell as much as 75% from its all-time high in June 2017.

Robert Lane – CFO



EVP / Chief Financial Officer
Sunnova Energy Corp.
May 2019 – Present · 1 yr 4 mos



Chief Financial Officer
Spark Energy
Jun 2016 – May 2019 · 3 yrs
Houston, Texas

CFO for a NASDAQ-listed retail gas and power company. Responsible for corporate financial reporting, risk management, accounting, financial planning & analysis, treasury, investor relations, tax and internal controls.

Spark Energy (NASDAQ: SPKE) Share Price Chart



Christian Hettick – VP of Finance & FP&A



VP of Finance and FP&A
Sunnova Energy Corp.
Sep 2019 – Present · 1 yr
Houston, Texas



Spark Energy
5 yrs

Director of Finance and Investor Relations
Apr 2019 – Sep 2019 · 6 mos
Houston, Texas

Manager, Strategy & Analytics
Aug 2016 – Jul 2018 · 2 yrs

Wearing my investor relations hat, I handle inbound investor calls and emails, interact with institutional investors, and am responsible for the posting and filing of our press releases and dividend forms.

Senior Financial Analyst
Oct 2014 – Jul 2016 · 1 yr 10 mos

I tracked analyst expectations and reported on key public company metrics for management as part of our IR function.

1) Found to use unethical business practices including allegations of using illegal robocalls ([Connecticut Attorney General](#))
2) Acquired Major Energy, another energy provider which had a history of deceptive business practices ([Chicago Tribune](#))

CFO's Obscured Role At Madison Williams, Backed By Two Investors Later Charged With Fraud

Sunnova's CFO Robert Lane SEC-filed and public biography excludes explicit mention of his tenure as a Managing Director at Madison Williams and Company (2009-2011), a spin off from Sanders Morris Harris (Nasdaq: SMHG). Madison Williams was backed by two dubious investors: Pan Asia China Commerce Corp (PAC3) and Fletcher Asset Management.⁽¹⁾ Fletcher Asset Management, was described as having characteristics of a Ponzi scheme, and filed for bankruptcy protection in June 2012.⁽²⁾ In August 2016, the SEC filed fraud charges against PAC3 in a film financing scheme.⁽³⁾ Madison Williams ultimately filed for bankruptcy protection in December 2011.

Robert L. Lane

Executive Vice President and Chief Financial Officer

Mr. Lane has served as Sunnova's Executive Vice President and Chief Financial Officer since he joined Sunnova in May 2019. Prior to joining Sunnova, Mr. Lane served as Vice President and Chief Financial Officer of Spark Energy, Inc., a publicly traded retail energy services company, from June 2016 to April 2019. Mr. Lane previously served as the Chief Financial Officer of Emerge Energy Services GP, LLC, the general partner of Emerge Energy Services LP, from November 2012 to June 2015. From December 2011 to November 2012, Mr. Lane was a Managing Director at Global Hunter Securities LLC, where he was responsible for the origination and execution of capital markets and M&A transactions in the midstream industry. Mr. Lane previously served in various roles, most recently as Managing Director, of Sanders Morris Harris Inc. and its affiliates from November 2004 to December 2011, where he led equity research and then investment banking coverage of midstream energy companies, particularly master limited partnerships. Mr. Lane is a Certified Public Accountant and a Chartered Financial Analyst. Mr. Lane received his MBA from the University of Pennsylvania's Wharton School and his Bachelor of Arts degree from Princeton University. He also received a Certificate in the Accountancy Program from the B.T. Bauer School of Business at the University of Houston.

Source: [Company Website](#) and SEC-filed biography

Robert lane's biography does not include his tenure at Madison Williams which is shown on his FINRA Broker Check ([source](#)). Madison Williams was backed by dubious investors



Welcome to Madison Williams and Company – a newly launched firm (controlled by employees and private investors including Fletcher International, Inc) that is capitalizing on market opportunities created by the global financial dislocation. Madison Williams is leveraging its 20-year history within Sanders Morris Harris (SMHG), and has a dedicated team of talented professionals that are passionate about helping our clients achieve their strategic and financial objectives.

With the spin-off from SMHG, we believe that Madison Williams embodies the all too rare Wall Street culture of a private, client-focused and relationship-driven firm. We look forward to introducing you to the team at Madison Williams - where opportunity meets capital

Source: [Waybackmachine](#)

- 1) [Sanders Morris Harris Group SEC filings](#)
- 2) [New York Post](#)
- 3) [SEC files charges PAC3 with Fraud](#)

Concerns With Executive Compensation Plan

Spruce Point is concerned by 1) the selected peer group which does not include leasing companies, and 2) the metrics used to evaluate executive compensation. While Sunnova limits its peers to “larger solar and renewable energy companies,” competitor Sunrun includes leasing companies in its compensation evaluation. ISS assigns Sunnova’s compensation with a Governance QualityScore of 9 (lower risk=1, higher risk=10).

Sunnova Peer Group

Competitive Benchmarking

Our Compensation Committee considers competitive industry data in making executive pay determinations and utilizes an executive compensation benchmarking peer group of companies (“compensation peer group”) which our Compensation Committee believes is the most appropriate benchmarking peer group. The compensation peer group was developed with the input of L&A and includes some of the larger solar and renewable energy companies with which we compete for business and talent as well as other relevant companies with levels of revenues and assets similar to ours. The Compensation Committee will review and refine the compensation peer group periodically, as appropriate, based on, among other things, the recommendations made by L&A.

Sunrun Peer Group

Compensation Peer Group

With the assistance of Meridian, our compensation committee selected our primary compensation peer group which we used for our 2019 compensation decisions. The compensation peer group was generally developed from companies with a focus on renewable energy, direct-to-consumer software/services, fintech, and leasing companies. We selected publicly-traded, stand-alone companies which had revenues at levels 1/4x to 4x Sunrun’s revenues of approximately \$600 million (i.e., a range of \$150 million to \$2.4 billion) and a market cap between 1/4x and 4x Sunrun’s market capitalization of approximately \$1.4 billion (i.e., a range of \$345 million to \$5.5 billion).

Sunrun includes a broad set of peers covering multiple industries it operates in

Peers & Compensation Metrics Not Relevant

While Spruce Point does not agree with Sunnova's selected peers, none of the peers use Adjusted EBITDA or adjusted operating cash flow as a metric for compensation.

	Executive Compensation Metrics	Industry
Clearway Energy	- Cash available for distribution, Key financial milestones, Key transition milestones, Achievement of thermal plan	Electric Utility
Hannon Armstrong	- Core earnings / share, Core ROE	REIT
Pattern Energy ⁽¹⁾	- Cash available for distribution, Return on equity employed, Megawatts added or new PPAs, Safety KPI	Integrated Renewable Energy
SunPower	- Revenue, Adjusted cash flow, Business restructuring objectives	Solar Power Components
Sunrun	- Megawatts deployed, Cash generation, Operational (customer experience related goals)	Solar, Installation, Ownership/Leasing
Vivint Solar	- Cost per watt, Megawatts installed, Individual KPIs	Solar, Installation, Ownership/Leasing
Sunnova	- Adjusted EBITDA plus P&I, Adjusted Operating Cash Flows, Increase in adjusted GCV (gross contracted value), Originated Customer count	Solar Ownership/Leasing

1) Acquired by CPPIB in March 2020
Source: Company proxy statements

Sunrun's Proxy Peer Group

Spruce Point believes Sunrun's inclusion of financing companies in its peer set is appropriate to represent the financing and leasing aspect of Sunrun's diversified solar business. We believe these peers are more relevant for Sunnova's pure financing/leasing business.

Peer Company	Industry
Aircastle ⁽¹⁾	Leasing (Aircraft)
Air Lease	Leasing (Aircraft)
Alarm.com	Smart Home Technology
Bloom Energy	Clean Energy
Boingo Wireless	Leasing (Wireless)
Enova International	Lending
First Solar	Solar
Generac Holding	Energy
Gogo	Leasing (Wireless)
Green Dot	Lending
LendingClub	Lending
LendingTree	Lending
On Deck Capital	Lending
SunPower	Solar
Vivint Solar	Solar

1) Acquired in November 2019
 Source: [Sunrun proxy statement](#), Company filings

Audit Partner Is An Energy Specialist

Sunnova's current audit partner at PricewaterhouseCoopers is Rahul Sood, a Partner in the firm's Energy & Utilities practice. We believe Mr. Sood's expertise is not relevant and PwC should assign an audit partner with specialty finance/leasing experience.



Energy and Utilities specialist, currently located in Houston, with over twenty six years of international work experience having lived and worked in the United States, United Kingdom, Russian Federation and Middle East. Core skill set includes senior level client relationship management; business growth & development and overseeing execution of strategic and transformational imperatives. Chartered Accountant & CPA credentials have enabled a proven track record in Accounting (US GAAP & IFRS), Auditing, Finance Process and IPO's (London & New York).

Thrives on demystifying complex questions, adept at working cross culturally and building trusted relationships with all stakeholders. Known for curiosity, open-mindedness, commitment, sound judgment, and empathy. Relentless focus on people development and diversity.

Need For Financial Services Expertise

We find many leasing companies' audit partners to have specialty finance/leasing related experience, relevant to Sunnova's business model. AerCap Holdings (audited by PwC) and Air Lease Corp, two leasing companies, have audit partners with financial services experience.

AerCap Auditor

March 24, 2020 Ronan Doyle AerCap Holdings N.V. PricewaterhouseCoopers
(AER | 0001378789) (1366)

Source: [PCAOB](#)

Ronan Doyle · 3rd
Partner - Banking and Insurance Leader
Ireland · 245 connections · [Contact info](#)



PricewaterhouseCoopers

25 yrs

Partner - Banking and Insurance Leader

1995 – Present · 25 yrs
Dublin, Ireland

Practice Leader for the Banking and Insurance Assurance practice in PwC Ireland, a group of over 200 working with the largest clients in the Banking and Insurance industry

Senior Manager - Financial Services

Oct 1995 – Jun 2006 · 10 yrs 9 mos

Source: [LinkedIn](#)

Air Lease Auditor

March 3, 2020 Trenton Wade Eisenman KPMG LLP (185)

Source: [PCAOB](#)

Trent Eisenman · 3rd
Audit Partner at KPMG LLP
Orange County, California Area



Audit Partner

KPMG

Oct 2016 – Present · 3 yrs 11 mos
Orange County, California Area

I am an audit Partner in KPMG's Orange County office. I currently work with clients in financial services industry. I work with public and private entities reporting in US GAAP.

Source: [LinkedIn](#)



Valuation And Downside Risk

Valuation Range: A Single Digit Share Price

Using price-to-book value, a metric traditionally used for specialty finance companies, and value per customer in line with peers, we believe there is significant downside to Sunnova shares.

<i>\$ million, except per share values and EV per customer</i>	Low Price	High Price
Book Value		
Book Value	\$662	\$662
<u>Book Value Multiple</u>	<u>0.75x</u>	<u>1.00x</u>
Equity Value	\$496	\$662
Value Per Share	\$5.91	\$7.87
<i>Upside / (Downside)</i>	(78%)	(71%)
Customers		
Total Customers	91,600	91,600
<u>EV / Customer (\$ thous.)</u>	<u>\$25.0</u>	<u>\$27.0</u>
Enterprise Value	\$2,290	\$2,473
- Debt	(\$1,765)	(\$1,765)
- Redeemable NCI	(\$238)	(\$238)
<u>+ Unrestricted Cash</u>	<u>\$102</u>	<u>\$102</u>
Equity Value	\$389	\$573
Value Per Share	\$4.63	\$6.81
<i>Upside / (Downside)</i>	(83%)	(75%)

Perplexing Relative Valuation

Sunnova's business model aligns itself closer to specialty finance / leasing peers than solar businesses. Despite its undifferentiated offerings and lagging financial metrics, Sunnova trades at a premium to peers across all metrics. Spruce Point believes it is only a matter of time until Sunnova's growth contracts inline with industry peers.

Company	Stock Price 9/28/2020	Adj Ent. Value	2019E OCF Margin	'20E-'21E		P/E		Enterprise Value			Price/Book	
				Sales Growth	Sales Growth	2020E	2021E	Sales 2020E	Sales 2021E	OCF 2020E		EV/ Customer
Solar Peers												
Sunrun	\$71.98	\$11,438	(23.8%)	42.3%	11.9%	NM	74.5x	13.6x	9.6x	(107.7x)	\$37,016	5.1x
Vivint Solar	\$39.45	\$6,641	(94.8%)	16.9%	7.1%	NM	NM	16.9x	14.4x	(15.1x)	\$34,771	16.3x
		Max	(23.8%)	42.3%	11.9%	NM	74.5x	16.9x	14.4x	(15.1x)	\$37,016	16.3x
		Average	(59.3%)	29.6%	9.5%	NM	74.5x	15.2x	12.0x	(61.4x)	\$35,894	10.7x
		Min	(94.8%)	16.9%	7.1%	NM	74.5x	13.6x	9.6x	(107.7x)	\$34,771	5.1x
Speacilty Financing/Leasing Peers												
Aercap	\$25.51	\$31,737	63.8%	(7.0%)	2.3%	3.9x	4.3x	6.8x	7.3x	16.6x	--	0.3x
Air Lease	\$29.85	\$17,359	69.0%	13.3%	17.2%	6.5x	5.8x	8.3x	7.4x	11.9x	--	0.6x
CAI International	\$27.57	\$2,521	61.0%	(2.8%)	6.7%	8.6x	7.3x	7.5x	7.7x	NM	--	0.7x
Fly Leasing	\$7.64	\$2,109	58.6%	(3.7%)	5.2%	3.6x	4.4x	6.0x	6.2x	21.5x	--	0.3x
Enova	\$16.01	\$1,107	72.2%	23.2%	44.9%	4.8x	3.8x	1.1x	0.9x	NM	--	1.0x
On Deck Capital	\$1.59	\$713	63.5%	(7.7%)	55.0%	NM	6.6x	2.2x	2.4x	NM	--	0.4x
LendingClub	\$4.71	\$425	(23.5%)	86.6%	90.0%	NM	NM	1.4x	0.8x	NM	--	0.4x
		Max	72.2%	23.2%	55.0%	8.6x	7.3x	8.3x	7.7x	21.5x	--	1.0x
		Average	64.7%	2.5%	21.9%	5.5x	5.4x	5.3x	5.3x	16.7x	--	0.6x
		Min	58.6%	(7.7%)	2.3%	3.6x	3.8x	1.1x	0.9x	11.9x	--	0.3x
Sunnova	\$26.79	\$4,140	(129.4%)	37.6%	31.2%	NM	NM	25.0x	18.1x	16.4x	\$45,494	2.5x

Sunrun / Vivint Solar Deal Valuation

Sunrun's acquisition of Vivint Solar provides a key data point to assess valuations in the solar industry. While Sunnova generates less revenue per customer than Sunrun and Vivint Solar, its valuation is substantially higher. After the deal announcement, Vivint traded at 9.4x and 8.9x 2020E and 2021E revenues, while Sunnova traded at 23.7x and 19.4x. We believe the Vivint deal is evidence Sunnova is trading at an extremely frothy valuation relative to its more diversified residential solar peers that is not justified by its performance.

Valuation Metrics As Of July, 7th 2020

\$ in millions, expect customer figures	Metrics								Valuation			
	Market Cap	Enterprise Value	Customers	2019 Revenue	2020E Revenue	2021E Revenue	2020E Revenue Growth	2021E Revenue Growth	EV/2020E Revenue	EV/2021E Revenue	EV/Customers	2020E Revenue/Customers
Sunrun – Pre-Deal	\$2,568	\$5,046	298,000	\$859	\$805	\$970	(6.2%)	20.5%	5.9x	6.3x	\$16,933	\$2,701
Vivint Solar – Pre-Deal	\$1,325	\$2,769	197,000	\$341	\$358	\$426	5.0%	19.0%	8.1x	7.7x	\$14,056	\$1,817
Vivint Solar – Deal Price	\$1,757	\$3,200	197,000	\$341	\$358	\$426	5.0%	19.0%	9.4x	8.9x	\$16,244	\$1,817
Sunnova	\$1,581	\$3,120	91,600	\$132	\$161	\$213	22.4%	32.3%	23.7x	19.4x	\$34,061	\$1,758

Spruce Point believes Sunnova's growth rate will compress to be inline with industry peers

We believe that as growth slows, Sunnova's industry high multiple will contract

We have presented our belief, supported by interviews with former executives, that EBITDA is not an appropriate metric to analyze Sunnova. Despite this, the sell-side chooses to focus on EBITDA to evaluate NOVA's financial performance and valuation.

J.P. Morgan – August 19, 2019

Sunnova

Power Insurgent: Initiating Coverage at Overweight

We are initiating coverage of NOVA with an Overweight rating and a December 2020 price target of \$18.00. Surging into the leadership ranks of US residential solar, Sunnova is differentiated by a unique go-to-market strategy, it is growing fast and more profitably than its nearest peers, and the stock should appeal to a broader base of investors owing to attractive EBITDA margins and positive cash flow from operations.

- **Attractive and resilient business model.** NOVA has posted two years of EBITDA profitability, exiting 2018 with 39% adjusted EBITDA margins. Cash flow from operations is near break-even and should flex positive in 2020, making the company more resilient to a disruption in the debt market, relative to its peers.
- **Strong growth.** We look for NOVA to generate about 45% EBITDA growth on 30% revenue growth through 2022 and for well-above-GDP growth to be sustained through the 2020s.
- **We rate NOVA Overweight.** At 14.2 times CY21E EV/EBITDA, we think the multiple is attractive, set against an earnings growth rate of about 45%. Our 2020 year-end price target of \$18 is based on an EV/EBITDA approach, supported by a DCF. We see downside protection at ~\$12/share, which we estimate is the NPV value of the firm's OpCo assets.

J.P. Morgan – July 6th, 2020

- **We rate NOVA Overweight.** At ~20 times CY21E EV/EBITDA, we think the multiple is attractive, set against an earnings growth rate of about 40%. Our Dec 2021 price target goes to \$22, from \$20, based on an assigned multiple of 19x our revised FY22E EV/EBITDA.

Goldman Sachs – July 30th, 2020

NOVA maintained solid execution in the midst of an uncertain US resi solar backdrop in 2Q, printing relatively clean results while reiterating its 2020 guidance. At the same time, ongoing dealer expansion and growing technology penetration (e.g. batteries) appear to position NOVA to further accelerate growth into next year, with the company citing a +40% customer growth target – which is well in excess of consensus expectations – as reasonable heading into 2021-2022. On the back of higher volume assumptions, we raise our 2020E-2022E adj. EBITDA (proforma) estimates and reiterate our Buy rating as our 12-mo target moves to \$29 (vs. \$26).

Valuation

Our 12-mo price target of \$29 (\$26 prior) is based on a 50/50 weighting of (1) our adj. EBITDA valuation of \$27 (\$24 prior) based on a 20X multiple on our Q5-Q8 adj. EBITDA (pro forma) estimates and (2) our NAV valuation with assets expected to be installed through 2021 having ~\$15/sh (\$16 prior) of value, and our future NAV of ~\$16 (\$11 prior) for 2022 assets with an 8X multiple, bringing the total NAV to ~\$32 (\$27 prior).

Estimated Customer Value Multiple

Variations of estimated customer value used by analysts heavily rely on the Company's long-term, optimistic assumptions. This metric essentially puts investors' faith in the Company's model, upon which the auditor disclaims any level of assurance.

As a result of this unreliable valuation method, Roth Capital has the 2nd highest price target for Sunnova

Incorrectly adjusts for restricted cash

Adjusting NAV for construction in progress and inventory artificially boosts estimated share price

Roth Capital – July 31, 2020

Exhibit 4: We reach our \$33PT for NOVA by applying a 1.8x multiple to our estimated 30 year NAV using a 4% discount rate, implying 35% upside from the current price of \$24.45.

Valuation Method – Multiple of Customer Value/Asset Value			
Asset Value -- Contracted Assets for 25 Years	Units	Discount Rate	
		4%	6%
Gross contracted customer value	\$mn	2,534	2,194
Less: Debt	\$mn	(1,743)	(1,743)
Plus: Cash and <u>restricted cash</u>	\$mn	184	184
Plus: <u>Construction in progress</u>	\$mn	180	180
Plus: <u>Inventory and prepaid inventory</u>	\$mn	137	137
Asset Value -- 25 years	\$mn	1,293	953
Share count		84.0	84.0
Value/share -- Contracted assets for 25 years		\$15.38	\$11.34
	1.9x	\$29.92	\$22.05
	2.1x	\$33.00	\$24.32
Multiple of customer value/asset value	2.3x	\$36.08	\$26.59
	2.5x	\$39.15	\$28.85
<i>At a 4% discount rate, our \$33PT represents a 2.15x multiple.</i>	2.7x	\$42.23	\$31.12
	2.9x	\$45.31	\$33.39

Flawed Methodology Results In Inflated Price Targets

Wall Street analysts primarily use a combination of EBITDA multiple and estimated customer value to assign a price target for Sunnova. We believe EBITDA is the incorrect metric for the Company and estimated customer value is calculated with numerous unpredictable assumptions. Regardless, relative to its solar peers, Sunnova appears overvalued on a revenue and EBITDA multiple basis. We believe neither of these methodologies are appropriate for a financing business like Sunnova and a price-to-book multiple is most relevant.

Firm	Rating	Price Target (\$)	Analyst's Primary Industry Coverage	Valuation Metric
JMP Securities	Outperform	\$43	Alternative Energy	Anticipated cash generation multiple
Roth Capital	Buy	33	Alternative Energy	Estimated Customer Value multiple
Baird	Outperform	32	Alternative Energy	n/a
B. Riley	Buy	30	Alternative Energy	EBITDA multiple
Goldman Sachs	Buy	29	Solar / Clean Tech	EBITDA multiple & NAV valuation
JP Morgan	Overweight	29	Technology	EBITDA multiple
KeyBanc	Overweight	28	Traditional Energy	n/a
Credit Suisse	Outperform	26	Traditional Energy	n/a
Raymond James	Outperform	26	Traditional Energy	n/a
Average Price Target		\$31		
Upside		16%		

None Of The Analysts With The Highest Price Targets Cover Leasing Businesses

Spruce Point believes Sunnova's sell-side coverage is unsatisfactory and a result of the misalignment between Sunnova's leasing business and analysts' coverage of the solar and alternative energy sectors. We believe it is a major concern that none of the analysts cover other leasing businesses.

Joseph Osha – JMP Securities

First Solar Inc
Sunnova Energy Intern...
Axon Enterprise Inc
New Fortress Energy I...
Cree Inc
Azure Power Global Ltd
Sunrun Inc
TPI Composites Inc
ShotSpotter Inc
Iteris Inc
Enphase Energy Inc
Itron Inc
SolarEdge Technologie...
Tesla Inc
Vivint Solar Inc
Canadian Solar Inc
Itron Networked Soluti...

Philip Shen – Roth Capital

Sunnova Energy Interna...
Generac Holdings Inc
ReneSola Ltd
Daqo New Energy Corp
Azure Power Global Ltd
Sunworks Inc
Canadian Solar Inc
Sunrun Inc
Hannon Armstrong Sust...
TPI Composites Inc
First Solar Inc
American Superconduct...
SunPower Corp
Enphase Energy Inc
SolarEdge Technologies ...
Vivint Solar Inc
JinkoSolar Holding Co L...
Trina Solar Ltd

Ben Kallo – Baird

Tesla Inc
Beyond Meat Inc
California Water Service...
Archer-Daniels-Midland ...
FMC Corp
Darling Ingredients Inc
Bunge Ltd
Cabot Corp
Albemarle Corp
First Solar Inc
Hannon Armstrong Sust...
Essential Utilities Inc
SunPower Corp
American Water Works C...
Itron Inc
Sunnova Energy Interna...
Middlesex Water Co
W R Grace & Co

Limited Probability Of Acquisition

Given Sunnova's sky high valuation, we believe that it would be a large pill to swallow for any potential acquirer. Since Tesla acquired SolarCity in 2016, it appears the residential solar installation business has not been a priority for Tesla as SolarCity's share of the installation and financing market has plummeted. Given Sunrun's recently announced acquisition of Vivint Solar, we believe at the moment it is very unlikely for Sunrun to pursue an acquisition of Sunnova. With Sunnova's largest investor selling shares, it is a good signal that any large transformational acquisition is not a near term catalyst. Spruce Point believes if Sunnova participates in any M&A activity, it would likely be the acquisition of smaller players.

Tesla's SolarCity

	Annual Market Share							Quarterly Market Share				
<i>Values in megawatts</i>	2013	2014	2015	2016	2017	2018	2019	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Total National Residential Market MW	799	1,268	2,171	2,638	2,239	2,430	2,839	617	663	733	826	810
SolarCity in MW	206	414	708	660	352	208	130	69	63	61	72	28
SolarCity MW Growth	--	100.8%	71.2%	(6.7%)	(46.7%)	(40.9%)	(37.5%)	--	(9.5%)	(3.3%)	18.2%	(60.9%)
Installation Market Share	25.8%	32.6%	32.6%	25.0%	15.7%	8.6%	4.6%	11.2%	9.5%	8.3%	8.7%	3.5%
Financing Market Share ⁽¹⁾	25.5%	32.9%	32.6%	20.9%	9.5%	2.3%	1.7%	--	--	--	--	1.6%

Since SolarCity was acquired by Tesla, growth has declined and market share has plummeted