



**Q3 2021 Earnings Call  
November 4, 2021  
Transcript**

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**Presenters**

Mary Powell, CEO  
Ed Fenster, Co-Founder and Co-Executive Chair  
Tom vonReichbauer, CFO

**Q&A Participants**

Brian Lee – Goldman Sachs  
James West – Evercore ISI  
Tristan Richardson – Truist Securities  
Mark Strouse - JPMorgan  
Joseph Osha - Guggenheim Partners  
Aric Li - Bank of America  
Kashy Harrison - Piper Sandler  
David Peters - Wolfe Research  
Joe Beninati - Oppenheimer  
Philip Shen - ROTH Capital  
Maheep Mandloi - Credit Suisse

**Operator**

Good day, ladies and gentlemen, and welcome to your Sunrun third quarter 2021 earnings call. All lines have been placed on a listen-only mode and the floor will be open for your questions and comments following the presentation.

At this time, it is my pleasure to turn the floor over to Patrick Jobin, investor relations. Sir, the floor is yours.

**Patrick Jobin**

Thank you, Terrin. Before we begin, please note that certain remarks we will make on this call constitute forward-looking statements. Although we believe these statements reflect our best judgment based on factors currently known to us, actual results may differ materially and adversely.

Please refer to the company's filings with the SEC for a more inclusive discussion of risks and other factors that may cause our actual results to differ from our projections made in any forward-looking statements. Please also note that these statements are being made as of today, and we disclaim any obligation to update or revise them.

On the call today are Mary Powell, Sunrun's CEO; Ed Fenster, Sunrun's co-founder and executive chair--co-executive chair; and Tom vonReichbauer, Sunrun's CFO.

Following the prepared remarks, we will conduct a question-and-answer session. We ask that you limit yourself to just one question, so we can take as many questions from participants as the scheduled time allows.



And now, let me turn the call over to Mary.

**Mary Powell**

Thank you, Patrick. Hi. I am so pleased to be speaking to all of you today on my first quarterly call as CEO of this industry-leading transformational company. While I am only just a couple of months into the role, my excitement for all we have and will accomplish to accelerate the customer-led revolution to distributed energy is building and intensity.

In my first months, I particularly enjoyed working directly in the field with our customer-facing teams, our dedicated installation crews, our partners, and most importantly, with our customers.

First, I will touch on our performance in the quarter, and then I will discuss my priorities for the company in the months ahead. The Sunrun team delivered a strong third quarter, growing our customer base by over 30,000 customers, reflecting an 18 percent growth of solar energy capacity installed compared to the prior quarter. We continue to see very strong sales activities as well with more than 20 percent sequential growth in customer orders.

Our volumes included records in our new homes business, our channel partner business, and our direct business. We also set records again with our highest battery installations in Q3, achieving more than 100 percent year-over-year growth, providing what customers want to power through grid outages and to optimize when and how they consume energy. This is an incredibly powerful accomplishment and bodes incredibly well for our work going forward on dramatically advancing whole home electrification.

We continue to expect 30 percent growth in new solar energy capacity installed this year as the team continues to execute and homeowners demand clean, affordable energy options. Importantly, we delivered a strong improvement in our net subscriber value, which increased over \$2,000 sequentially, and we expect to report even higher net subscriber values again in Q4.

As many of you know, the industry continues to navigate a very dynamic supply chain environment with higher logistics and material costs in addition to continued tightness on battery supply. This is why I am so pleased that Sunrun was able to onboard a third battery supplier, and we are seeing that tightness gradually improve for our customers.

As everyone in the industry is facing these cost increases and limitations on battery availability, we have selectively and modestly raised prices several times during the quarter to mitigate some of these effects. That said, it is important to put these price increases in the context of utility rates, which are continuing to escalate at a rapid pace, which means our value proposition continues to grow, particularly when you consider that we offer a form of resilience that customers are demanding, and utilities simply aren't able to provide.

I am filled with optimism and hope simply because today, we have the tools to address the climatic challenges and provide customers with clean, affordable, and resilient energy which the centralized grandpa's grid simply cannot do. Our electric grid system is failing more frequently and fundamentally not built for climate change.

Sunrun's mission of creating a planet run by the sun is more critical today than ever before. We've made a lot of progress to date. Sunrun has built a large base of over 630,000 customers and leads the market with our accessible solar and storage service offerings. We are operating at a scale that is two times larger than our nearest competitor, which drives more efficiency and value creation opportunities.

We are investing heavily to differentiate further and build the brand customers think of to not just power their homes but to transform their lives.

Sunrun has now installed over 28,000 solar and battery systems nationwide, which offers homeowners the ability to power through multi-day outages with clean and reliable home energy. Solar and battery systems



also optimize when power is purchased or supplied to the grid, helping to manage constraints on the grid during peak times.

We are starting to network these batteries together to form virtual power plants, which generates incremental recurring revenue and offers an enhanced customer value proposition, further differentiating Sunrun's offerings from companies that lack the scale, network density, and the technical capabilities necessary to serve this market.

Sunrun has forged 12 virtual power plant awards to date and has a pipeline of more than 75 million in revenue. We expect to convert more of this pipeline in the quarters ahead and show how valuable distributed resources can be to solve challenges the traditional energy system faces.

I believe now is the time for radical collaboration with incumbent players. Moving faster together, we can solve challenges they face through this modern thinking about how to manage the grid.

We continue to be excited about our partnership with Ford and expect meaningful flywheel effects from the widespread adoption of electric vehicles. As we have noted in the past, the adoption of electric vehicles provides meaningful tailwinds to our business. Consumers want to charge their cars with clean, affordable energy and often consider a solar and battery system when they make the switch to an EV.

It also provides us the opportunity to increase the size of systems, which can carry high incremental margins and bring even more value to customers. We believe we are well on our way as the leader in the nation on distributed energy paired with a clear strategy to be a trusted partner on whole home electrification.

To sum it up, I am very excited about our progress thus far, the path we are on, and the opportunities in front of us. I believe 2022 will be another breakout year for Sunrun with above-market sustainable growth, accelerating investments in innovation, and driving continued differentiation by launching more whole home electrification offerings.

I also believe that our leading scale, operating discipline, and strong capital markets will enable us to generate significant value for our stakeholders. We'll provide more specifics as we finalize our 2022 plan and see what emerges from D.C.

Before I turn the call over to Ed and Tom, I'd really like to thank our employees, our customers, our partners for their contributions to our success and for their dedication to our mission. Over to you, Ed.

### **Ed Fenster**

Thanks, Mary. We continue to exceed our own expectations and capital market execution. And today, I'll provide an update on our progress and strategy. I'll also touch on a couple of policy matters.

As we discussed last quarter, we have decided principally to pursue a strategy that will drive near-term cash generation using non-recourse debt. I've been saying for years that cost of capital and residential solar transactions should be lower than in utility scale transactions. I concluded this because the diversity of customer, equipment, location, and regulations in a residential solar transaction make for less risk than in utility scale transactions, which lack diversity and typically include a single customer with a weak investment-grade credit rating.

In addition, Sunrun finances billions of dollars against the same form contract, whereas utility scale transactions are all bespoke and so more costly for lenders to review.

This quarter, we made my vision a reality, at least in the senior debt market where we priced an asset-backed security at a spread to the benchmark swap rate of 120 basis points. Recent senior loans in the utility scale solar, wind, and storage markets have been pricing at spreads between 125 and 175. We also made significant progress reducing the cost of our subordinated capital.



In this transaction, we achieved interest rate savings of 20 percent to 33 percent as compared to recent transactions. However, we still have significant room for interest rate reduction before our subordinated capital underprices utility scale transactions, which I ultimately predict it will.

The all-in proceeds on this transaction significantly exceeded 100 percent of contracted subscriber value when measured using a 5 percent discount rate. The transaction included both newly placed and serviced assets and seasoned assets. And we estimate the advance rate on the newly placed in service assets was slightly more than 100 percent of contracted subscriber value. This result is above the high end of the 95 to 100 percent range we forecast on the last call.

We continue to believe 95 to 100 percent of contracted subscriber value is a good rule of thumb to use in cash flow forecasting of newly placed in service assets. This level of proceeds is well in excess of our fully burdened costs. So, we do not need to execute equity or equity-linked financings to fund our strong, ongoing customer growth despite the fact we were incurring billions in capital expenditures and operating costs.

The portion of the assets in this transaction that were seasoned received an advanced rate in excess of the newly placed in service assets, raising the average advance rate on the overall transaction. This result is a further proof point of the cash flows available to us upon refinancing seasoned assets.

Last month, we also expanded our warehouse facility to support continued growth while also lowering the cost of financing. We increased our non-recourse warehouse lending facility to \$1.8 billion in commitments, an increase of \$1 billion, while also reducing the interest cost to a spread of 200 basis points over LIBOR.

Cash flow in Q3 was reduced by two factors, one temporary and one permanent. First, in connection with the retirement of our old warehouse facility, we settled several out-of-the-money interest rate swaps, many of which we entered into during 2018. As a reminder, our strategy is to enter into interest rate swaps to mitigate the impact of interest rate fluctuations on our business. Because rates were higher in 2018, this swap termination resulted in a cash outflow of approximately \$45 million.

Because we do not swap—we do not include swap mark-to-market in our net earning assets calculation, this unusual repayment created a dollar-for-dollar headwind to NEA in the quarter. In addition, we made two draws on the new subordinated debt placement, one in Q3 and the other in Q4.

While the transactions we executed in Q3 serve as proof points that our large scale affords us access to the lowest cost of capital in the industry, the same large ticket sizes that afford us this advantage also make our free cash flow generation a little lumpy.

Over the near term, cash flow generation may also be non-linear due to investments in working capital. However, under this financing strategy over several quarters and especially next year, the cash flow generation of the business should be substantial.

We continue to maintain a robust project finance runway. As of November 4th, closed transactions and executed term sheets provide us expected tax equity and project debt capacity to fund over 270 megawatts for subscribers beyond what was deployed through the third quarter.

Given likely tax law changes in the reconciliation bill, which is currently being discussed in Congress, we are advancing a handful of additional transactions without formal term sheets. This is because the proposed tax law changes, once finalized, will require modifications to financing structures and terms and likely expand our business strategy.

Including these advanced stage discussions in our runway would add about two quarters' worth of additional tax equity capacity. Key among the considerations are an increase in the investment tax credit from 26 percent to 30 percent, a potential additional 10 percent to 20 percent credit for systems deployed in certain census tracts or to certain multifamily buildings and direct pay.



In local policy news, the Arizona Commerce Commission voted last week to eliminate the existing grid access charge for solar customers, improving the economics of rooftop solar in the state by about \$90 per year. We and others argued, and the commission agreed, that the cost of service for solar customers does not warrant an incremental fixed fee. Despite the data, Arizona Public Service, the local investor-owned utility, has advocated for fees as high as \$288 per year.

Also interesting is that the approved regulated rate of return for APS is 8.7 percent compared to the California utilities requests of about 12 percent. Especially in this low interest rate environment, where expected equity returns for GDP growth companies are in the mid to high single digits, a comparison of these ROEs underscores that if there is a cost shift in the state of California, it is from ratepayers to utility stockholders.

I'll now turn the call over to Tom.

**Tom vonReichbauer**

Thanks, Ed. Throughout the third quarter, we made continued progress on our integration with Vivint Solar and navigated a dynamic operating environment. We delivered solid results, posting strong volume growth and a significant rebound in our reported net subscriber values, while also marking another quarter of growing our cash balance. Importantly, we were able to reiterate our strong 30 percent growth outlook for the year and deliver meaningful total value generated for the full year.

Turning first to volumes. In the third quarter, customer additions were approximately 30,700, including approximately 24,800 subscriber additions. Solar energy capacity installed was 219 megawatts in the third quarter of 2021, an 18 percent increase from the second quarter this year and a 40 percent increase in the third quarter of last year, pro forma to include Vivint Solar.

We continue to experience strong customer demand for our products and services in Q3, with sales growth outpacing installed growth, but the gap between sales and installs was narrowed meaningfully versus what we experienced in the second quarter. Installation growth was strong across all of our channels with double-digit install growth rates versus prior year in every route to market. There was notable strength in our direct and new homes businesses in the quarter.

Our continued customer additions offer us the opportunity to upsell additional products and services over time, such as battery retrofits, EV chargers, repowered or expanded systems, and home energy management offerings. Additionally, increasing our total fleet of assets helps unlock valuable opportunities to grow our virtual power plant business.

To this point, the inability of a small competitor to perform created an opportunity to add approximately 2,000 customers or 13 megawatts to this quarter's growth in our fleet of solar systems. While such opportunities may present themselves again in the future, we do not expect more in the near term, but we'll evaluate future opportunities to further consolidate the industry and grow our customer base if they arise.

Installation volumes and attachment rates of batteries have increased again in Q3 to record levels. We continue to expect battery installations to increase more than 100 percent in 2021 compared to the prior year. Although battery supply and logistics constraints have lowered our expected battery volumes meaningfully in the near term compared to the prior outlook.

Our network solar energy capacity was 4.5 gigawatts at the end of Q3, an increase of 20 percent compared to the prior year, also pro forma to include Vivint Solar. We ended Q3 with approximately 630,000 customers and nearly 546,000 subscribers. Our subscribers generate significant recurring revenue with most under 20 or 25-year contracts for the clean energy we provide. At the end of Q3, our annual recurring revenue, or ARR, stood at \$787 million with an average contract life remaining of over 17 years.

In Q3, subscriber value was approximately \$35,700 and creation cost was approximately \$28,100, delivering a net subscriber value of approximately \$7,600. This represents a significant increase of over \$2,000 from last quarter as we expected, as we narrowed the gap between sales activities and installation



activities. Total value generated, which is the net subscriber value multiplied by the number of subscriber additions in the period, was \$189 million in the third quarter.

Turning now to gross and net earning assets on our balance sheet. Gross earning assets were \$9.2 billion at the end of the third quarter. Gross earning assets is the measure of cash flows we expect to receive from customers over time, net of distributions to tax equity partners and partnership flip structures, project equity financing partners, and operating and maintenance expenses discounted at a 5 percent unlevered WACC.

Net earning assets were \$4.5 billion at the end of the third quarter, an increase of over \$86 million from the second quarter. Net earning assets is gross earning assets plus cash less all debt. We ended the quarter with \$941 million in total cash, an increase of \$84 million from the prior quarter.

Turning now to our outlook. The current federal investment tax credit proposals for higher incentive levels in 2022 creates some uncertainty around volumes at year-end, but we continue to forecast solar energy capacity installed growth of 30 percent for the full year 2021, consistent with our prior guidance.

Total value generated is now expected to be around \$700 million for the full year, owing to higher material and logistics costs, continued strong sales growth, and a lower mix of margin-accretive battery installations in Q4 than we had previously expected given the current supply chain environment.

We continue to monitor the global supply chain and related regulatory environment, which could cause headwinds to the solar industry and global economy. However, we think we are well positioned to weather current conditions. We forecast net subscriber values will be higher in Q4 than Q3, which already saw a strong increase from Q2.

As the difference between sales activities and installation activities normalizes, our battery mix increases, recent price adjustments are reflected in installations. And as we realize more synergies from the Vivint Solar acquisition, we expect net subscriber values to be strong in 2022. We continue to estimate cost synergies derived from the acquisition of Vivint Solar to be approximately \$120 million in run rate synergies exiting this year.

While 2021 is not yet over, the work we've undertaken this year to integrate Vivint Solar into our operations realized valuable cost synergies from that transaction, invest in our growth and competitive positioning across all routes to market, and extend our leadership in project-based financing capabilities has set us up for another excellent year in 2022.

We believe we're well positioned for strong above-market volume growth and healthy net subscriber values resulting in meaningful cash generation, likely more than \$300 million in 2022. We anticipate sharing more details on our specific 2022 volume, margin, and cash generation outlook on the Q4 conference call in February. We will also share more details about how we will approach our capital structure strategy to optimize shareholder returns at that time.

With that, let's open the line for questions, please.

**Operator**

Thank you. The floor is now open for questions.

If you do have a question, please press star one on your telephone keypad at this time. If you're using a speakerphone, we ask that while posing your question, you pick up your handset to provide the best sound quality.

Again, ladies and gentlemen, if you do have a question or comment, please press star one on your telephone keypad at this time.

We'll take our first question from Brian Lee with Goldman Sachs. Please go ahead.



**Brian Lee**

Hey, guys. Good afternoon. Thanks for taking the questions.

Maybe, Tom, on that last point you made, the \$300 million of cash flow generation in 2022, I appreciate the sneak preview on that (inaudible). Is your definition still sort of cash balance at year-end versus cash balance at start of the year plus 300, and that's how you define it?

And then, a lot of it is going to have to do with how you, you know, raise capital and been pretty proactive here to end the year. How much visibility do you already have locked in at this point to that cash flow metric for next year?

**Tom vonReichbauer**

Yes. Thanks, Brian. So the definition we're using here is the change in total cash net of any changes to recourse debt given our working capital facility and corporate revolver can size up and down. So, this is total change in cash to the parent entity, net of changes in debt.

So, you know, as we've looked at the variety of scenarios in front of us on the federal policy front, supply chain disruptions, we've modeled out a number of different views on volume and margins and pricing and the like and feel really confident with the \$300 million level at this time. And, you know, as we work through clarity on those couple of items, you know, we'll come back with a more precise view of the whole picture, inclusive of volumes and margins on the Q4 call.

**Brian Lee**

All right. Fair enough. And then, I know you said the lower mix of battery installs is impacting the 2021 subscriber value generation guidance. Before, you had said 100 percent year-on-year growth. Can you kind of give us a sense of what you're seeing now?

And then, maybe taking a step back, what's your supply situation on that new product? Is it still the two vendors? Or what have you done to maybe source more supply there as we head into 2022?

**Tom vonReichbauer**

Yeah. So, the reduction in near-term battery supply has us bringing our total value generated guidance to, you know, around 700 million. We definitely are expecting lower battery attach on installs in Q4 than we previously expected but still north of 100 percent. So, still reaffirming that guidance we had previously expected, quite a bit of headroom above that and now a bit closer to that.

We've diversified our supply chain. Mary mentioned that we've added a new supplier into the mix that's in the process of launching here. And so, continue to, you know, maintain optionality across a variety of suppliers to navigate the environment.

You know, we think the overall picture on batteries, you know, consistent with what I said before, very tight now, will improve as manufacturers ramp up as some of the general, you know, global supply chain challenges are relieved and expect to come out of a tight position in future quarters.

But in the interim, we're able to build a backlog of projects. And so, as we get access to supply, you know, we'll be able to keep ramping there. But we were at record battery volumes and attach rates in Q3 and still expecting more than 100 percent year-over-year growth.

**Brian Lee**

Okay. That's great. I'll pass it on. Thanks, guys.

**Operator**

We'll take our next question from James West with Evercore ISI. Please go ahead.

**James West**



Hey, good afternoon, everyone. So, Mary, not surprised to hear the excitement in your voice because I've been--on my Twitter feeds, you're all over it and you're in a different city almost every day meeting with your teams and stuff. So, well done to get out there.

**Mary Powell**

Thank you.

**James West**

So, curious about the--I guess, two things. One is the, you know, the new channel partners and the 100 percent of those this quarter that agreed to be exclusive to you guys. How is that different from, you know, the last several quarters? Were they not all exclusive? And is this, you know, part of just brand recognition or execution or service quality kind of flow into the market?

**Tom vonReichbauer**

Yeah, I'll jump in here on channel partners. You know, we generally strive to sign up, you know, the majority of our partners under exclusive arrangements. Some, as we first get going, aren't always exclusive. And over time, as we deepen those relationships, we convert many from a non-exclusive to an exclusive relationship. I can think of some notable examples there and in recent weeks for us as well.

**James West**

Okay. Okay. Fair enough. And then I did notice, Tom, that your inventories were up a good amount, like 30 percent, sequentially. Is there some strategic move there? Or is that just a quarterly anomaly?

**Tom vonReichbauer**

Inventory.

**Ed Fenster**

Yeah. So, we're--yeah. So, we are deliberately increasing inventory levels just given some of the supply chain uncertainty in the marketplace, you know, between general logistics as around shipping and also, you know, some more disruption than that in the solar panel delivery markets.

We're carrying, you know, triple digits of days inventory, you know, including on panels, you know, likely into March. You know, we continue to take deliveries weekly but it's obviously a very dynamic environment right now, and we just want to make sure that kind of no matter what happens over the short term or even, you know, moderate term geopolitically, we're able to continue to, you know, meet our customer needs.

**James West**

Okay. That makes sense. Thanks, guys.

**Operator**

Our next question comes from Tristan Richardson with Truist Securities. Please go ahead.

**Tristan Richardson**

Hey. Good afternoon, guys. Appreciate sort of the comments on some peripheral services, et cetera, particularly with Ford.

Curious, you know, what other areas are you looking? Since some of your, you know, would be peers kind of move more inside the home. Could you talk about sort of potential there to expand the line of services?

Obviously, a ton of new services have come over the past couple of years. But as you look a couple of years out, you know, where do you see sort of additional services going?

**Ed Fenster**

That's a great question. So, you know, just to recap the company's history so far, obviously, we were really a rooftop solar company for a long time. And, you know, many years ago, five or more, we really made a hard push into batteries where we're now, you know, definitely the number one as well.





You know, I think we view ourselves as better positioned than anyone to assist customers and homeowners in particular in electrifying their heating and transportation needs. We develop strong relationships with our customers. We've proven the marginal sales cost to add storage on a solar system is de minimis. We expect that would be the case with other services.

You know, the next service, which we're obviously pushing most hard towards, is electric vehicles. As you know, we've discussed in the past, we co-developed the bidirectional charger, you know, which can be used with the Ford F-150 electric truck that allows you to, you know, immediately operate your home from the truck in the event of a power outage, and over time, you know, for virtual power plant purposes as well.

Over time, you know, as we get better and more significant launching electric vehicles, other products are sure to follow around, you know, heat pumps and what have you. But I would say right now, the main focus is on, you know, continuing to dominate in the battery, the storage space, and the launch of our electric vehicles' product.

**Tristan Richardson**

Super helpful. Great. And then, just a follow-up on the grid services opportunity. I know you've talked about the 75 million in backlog before. Should we think about that as--that 75 million is associated with the 12 programs you have announced? Or that is potential for programs that have yet to be announced in terms of the project funnel?

**Tom vonReichbauer**

It's a combination of the 12 awarded deals and other deals that are in late-stage negotiation within that pipeline. And, you know, as you've seen, given we've held at that number for a couple of quarters here, the, you know, awarding of deals can be quite lumpy. The contracting process with many of the counterparties here takes a while. But we believe we're building, you know, good headway there in expanding that pipeline, and we'll add to that in future quarters.

**Tristan Richardson**

Appreciate it. Thank you, guys, very much.

**Operator**

We'll take our next question from Mark Strouse with JPMorgan. The floor is yours.

**Mark Strouse**

Yeah. Good afternoon. Thanks for taking our questions.

I just wanted to go back again to the channel partners. You had pretty good growth quarter-over-quarter. You know, some of your large peers are kind of rolling up a lot of dealer partners as well.

And then kind of last point, I mean, you mentioned the 2,000 customers or so that from a smaller competitor that couldn't deliver. Obviously, you know, some of these competitors may not be as distressed as that particular competitor.

But just curious how--yeah, I mean, is this really just driven by kind of a lack of ability to get equipment? Or is there something else that's kind of a more secular driver here that you think the larger companies with scale can consolidate this industry?

**Ed Fenster**

Great question. So, this is Ed. So, you know, what's interesting about our industry, I think, is that there are just a lot of things that you need to do well. And there have been--you know, over the 14 years, you know, I've been at this, you know, I've seen companies not make it for various reasons. It could be construction quality. It could be financing. It could be sales strategy. It could be equipment provision.

You know, you're kind of only as strong as your weakest link. And I think one of the great, you know--one of the great things that we at Sunrun have is a fantastic and diverse management team that's able to deliver across the company, you know, in all areas.

You know, I would probably more describe this particular issue as just, you know, someone unable to achieve sufficient scale to overcome, you know, minimum operating costs. But, you know, I'm sure there are other things happening along the way as well.

**Mark Strouse**

Yeah. Okay. Thanks, Ed. And then just a quick follow-up.

You mentioned several price increases. Are you able to say what the cumulative change has been year-over-year, you know, whatever period you want to talk about? And has the--the value proposition to the customer, has that changed? Or is it kind of in line with the retail rates going up as well?

**Tom vonReichbauer**

Yeah, I'd need to get back to you on an aggregate number here because we do evaluate, you know, the opportunity to price on a market-by-market basis, which often comes in concert with rising utility rates, which happened, you know, in these sort of multiyear step function type changes when rate cases get put forward and approved.

Obviously, in the near term, you know, some of the supply chain cost increases on our side, we've passed back in the form of price increases, but making sure that we don't eat into the core value prop that we bring to consumers of more affordable, more reliable power. And so, you know, we're able to move a bit more in markets where we price at a much larger discount to the prevailing local utility rate and probably a bit less in some places where, you know--where the savings value prop is a little bit thinner.

As we said before, we price between 5 and 45 percent discount to the local utility on day one. And so, it's a pretty broad range there. But, you know, we think we continue to have a lot of pricing power as we see, you know, further cost increases from the supply chain. We think we've got a lot of ability to offset that through price increases.

You know, the backdrop of utility rates continuing to rise at faster and faster clips now. Many instances of high single-digit and even low double-digit proposed rate cases before public utility commissions provides a great opportunity for us to continue to grow our business and grow margins while also delivering more value for consumers.

**Mark Strouse**

Got it. Thank you.

**Operator**

We'll take our next question from Joseph Osha with Guggenheim Partners. Please go ahead.

**Joseph Osha**

Hi, there. Yeah. First, I just wanted to go back to storage a little bit. I understand you may not want to speak near-term to what's happening. But on the other side of some of these supply chain challenges, can you talk a little bit about what your aspirational attach rate might be?

**Tom vonReichbauer**

I mean, we've said before that, you know, we certainly think over the long run, you know, nearly every customer has storage. You know, we think today, with where the economics of that product are and the economics of solar relative to utility rates, you don't immediately get there.

We have markets, though, Hawaii, Puerto Rico, where we're at 100 percent attached. You know, other places where we're, you know, certainly, you know, well north of 50 percent.

As battery costs come down, which we've got, you know, a lot of insight from our partnerships and just views in the supply chain that costs will come down pretty dramatically over the, you know--over the medium term, that's going to push more and more consumers to consider adding storage.



I think as they also move more customers to time and use rates and more whole home electrification occurs, larger system sizes, there's just much more of an incentive for customers to add batteries here to a whole solution.

And so, you know, we continue to see strong consumer demand now. In spite of some of the supply chain tightness, we're able to build that backlog of orders for batteries and, you know, are excited to get on the other side of the current supply chain situation.

**Mary Powell**

Yeah. And the only thing I--

**Joseph Osha**

--So, maybe I--

**Mary Powell**

--Yeah, the only thing I would add to that, this is Mary, is another reason we have such an aspiration about getting to that 100 percent attach rate or as close as possible is that also really is, again, we're leading in the reinvention of the energy grid and through our grid services. You know, it's really about proving out a model that is so much more not just resilient but affordable from a larger energy system perspective.

So, again, there's a lot of benefits to driving up that attachment rate. And again, as Tom hit already, but the resilience one is really not to be underestimated. It's been proven so valuable for our customers all over the country as climatic events have flattened their communities.

**Joseph Osha**

Okay. Thanks. We'll get a next year number out of you at some point. And then, just an unrelated question, Ed, probably for you. What happens if we get cash pay, especially for individuals? How does that impact the lease in PPA market?

**Ed Fenster**

You know, I was, frankly, very surprised how hard certain people in the market lobbied for cash pay for individuals. I really don't think that's going to make a difference, you know, between the leasing product and the loans that are currently, you know, available and the fact that you can carry credits forward. Like I just--I really struggled to think that would make a big difference.

I think the largest impact of, you know, cash pay on the corporate side, you know, is likely that we might expand the types of customers or credit profiles that we're able to service.

And then, you know, also, you know, so far still in the bill on the corporate on the Section 48 side, you know, is a 10 percent tax credit adder for homes in certain census tracks, you know, which is a material chunk of our business and 20 percent for low to moderate income multifamily, which, you know, we also have a business in.

So, there are a lot of interesting, you know, things at work potentially in this bill that make us quite excited about it.

**Joseph Osha**

Okay. Thank you very much.

**Operator**

Our next question comes from Julien Dumoulin-Smith with Bank of America. Please go ahead.

**Aric Li**

Hi. Good afternoon. This is Aric on for Julien. Thanks for the question.

Just on storage really quickly. I know you reaffirmed full year '21 guide, but, you know, given the constraints you discussed driving lower-than-expected storage deployments for 2021, can you just discuss

your strategy in overcoming those hurdles for 2022? Is that predominantly just adding additional equipment suppliers? Or how do you think about that?

**Tom vonReichbauer**

Yeah. So, I think it's a few different factors. One, as Mary mentioned, you know, we added a new supplier into the mix just recently. So, that certainly helps, you know, expand access to product and diversify that supply chain. I think some of the challenges in the very short run are just around logistics and port constraints and the like. Some of that, you know, is the thing that we expect to alleviate.

And then, as more suppliers come online, as everyone continues to ramp production, we expect that will catch up to the strong consumer demand that we've seen for the product. So, you know, I think it's a mix of things within our own control that we're moving, you know, on also, you know, continuing to build the backlog.

So, just because we are tight on supply today, it doesn't mean that we forgo a customer order that we think we can fulfill next year, and we see that ramping. And so, that gives us a lot of confidence in the outlook in the year ahead.

**Aric Li**

Got it. And just a quick follow-up on the Smart Panel partnership with SPAN. Is that incremental cost of the Smart Electric panel on, you know, the features that are paying out from that being priced into the customer PPA? Or, you know, is that just a cost that's borne by yourself to drive future upsell value?

**Tom vonReichbauer**

You know, we have a decent number of customers as we go out and think about putting in a battery where we're already doing a main panel replacement. And so, you know, the incremental cost all in, inclusive of the product and labor, you know, depending upon the home and the installation job we're doing, you know, is modest in some cases, yeah, it's an incremental set of features for the customer. And we think it's got great value.

It's a solid product that, you know, we do think customers would be willing to pay up for. And so, early days on that partnership and expanding where we are, but we do a decent number of main panel upgrades today as is. And so, this is, you know, swapping out some of that work for the SPAN product.

**Aric Li**

Thank you. I'll pass it on.

**Operator**

We'll take our next question from Kashy Harrison with Piper Sandler. Please go ahead.

**Kashy Harrison**

Good afternoon, everybody. And thank you for taking my questions.

So, my first one is on the 2022 cash generated commentary. Tom, thanks for that. Perhaps this is maybe too simplistic of a way to think about it, but, you know, over the medium term, would you expect your--you know, your cash generation to more or less grow in line with your megawatts moving forward?

**Ed Fenster**

Yeah. So, this is Ed. And maybe Tom wants to add something, too.

So by and large, you know, before considering the effects of working capital, you would expect free cash flow to grow as fast or maybe slightly faster than megawatt growth. Against that, obviously, you have--we have to measure the increases in working capital that come from our building of large development pipeline of customers who are awaiting installation.

And then, also the fact that our financial transactions, which deliver the amount of proceeds that create a cash flow positive outcome, you know, happen periodically. And so, you might see, you know, variation in cash flow quarter-to-quarter based on the timing of those transactions.

**Kashy Harrison**

And you--actually, you gave me a great segue into my second question, which is actually around working capital. So, maybe you indirectly answered this already, but, you know, working capital has been quite elevated or as the use of capital has been quite elevated this year. Is--would this be a good indication of good--of how to think about a good run rate? Or are things just a bit unique this year given the challenging supply chain environment?

And then, if this year is not indicative of how things are going to be moving forward, do you have any good rule of thumb for us to think about?

**Tom vonReichbauer**

So, I think it's worth breaking the working capital component into sort of two parts here in my mind. The first is the supply chain side of this. And this year has been, you know, a bit anomalous there. We're--as we came into the year, we saw some of the early supply chain disruptions and have buffered inventory accordingly.

You know, we have inventory financing capabilities behind that. And so, that doesn't, you know, create a massive drag. But we are definitely at elevated inventory levels versus where we would expect to be in the long run. I think we'll probably carry, you know, high inventory into the first half of next year and for a little bit there.

And then, the second part of that is the effective working capital drag created through what Ed referenced on the financing side as a project gets built and put into a warehouse facility and then ultimately termed out the lumpiness of cash flows there with respect to new originations can be, you know, quite meaningful quarter-to-quarter.

But, you know, I would say, this year's inventory build has been, you know, more extreme than you would view relative to a megawatt growth going forward.

**Ed Fenster**

I think the only other factor I would chime in there to add is that, to the extent that sales growth outpaces installation growth, there's a working capital investment there in as much as your, you know, marketing and sales and permitting costs, et cetera, front run your term out.

So, those are sort of the three things that we keep in mind the supply chain situation, the--you know, the financing term out schedule. And just then, the kind of--the regular breathing of the backlog as it grows or shrinks based on the relative speed of sales and installations.

**Kashy Harrison**

Got it. Thank you.

**Operator**

Our next question comes from David Peters with Wolfe Research. Please go ahead.

**David Peters**

Yeah. Hey. Good afternoon.

Mary, I think in your prepared remarks, you said you were having radical collaboration with incumbent players. And, you know, I'm just wondering if you could, one, elaborate, you know, more on that. And is it, you know, referring potentially to a partnership with a local utility?

**Mary Powell**



Yes. So, I think what I referenced--hi, nice to chat with you. I think what I referenced was, now is the time for radical collaboration, without a shadow of a doubt.

You know, really, the services we provide are so complementary to creating a more affordable and resilient grid for all. So, yes, we have a bunch of grid services contracts already, as you know. And yeah, for sure, I have started conversations with a number of utilities that are looking at the future and seeing opportunity around greater partnership.

So, yes, that is underway and happening.

**David Peters**

Great. And then, just curious on the net subscriber value as we move into Q4, just, you know, thinking of the issues that hit Q2 and, you know, obviously, to a lesser degree, Q3, should we think these are kind of largely gone at this point? And I guess kind of along that vein, how much of the synergies from the Vivint acquisition do you still have left to go?

**Tom vonReichbauer**

Yeah. So, we do expect net subscriber values to continue to improve from Q3 to Q4, you know, as we work through a number of issues. I think as you see from the results and, you know, if you look at really kind of the comparison to Q1 almost that Q2, as we said at the time, you know, very anomalous in terms of sales growth dramatically outpacing installation growth and having, you know, a lot more construction and progress in that period. We worked through a lot of those issues here in Q3.

You know, Q4, you know, early portion of the quarter, we may, you know, still continue to see strong sales. I think you'll--you know, the Q1 normal sort of downward trend in seasonality is where you get some of that relief in terms of sales and installs flipping in the other direction. So, that'll go away.

But, you know, we're working hard to make sure that we drive sales capacity and installation capacity, you know, much closer to in line while making sure we don't forego the ability to acquire customers and build a bit of backlog as we enter into the next year. So, a bit of balance there.

On the integration side of things, you know, we're making really good progress, continue to be on track for the 120 in the year. And we've gotten through a lot of the final technology and system cutover efforts in--you know, in the recent quarter, which begins to unlock more of the synergies.

You know, we've definitely harvested a good chunk and have been able to reinvest in our business accordingly in a number of areas, but, you know, still a bit more that will be delivered here in Q4 that will result in growth in net subscriber values as well.

**David Peters**

Great. Thank you, guys.

**Operator**

We'll take our next question from Colin Rusch with Oppenheimer. Please go ahead.

**Joe Beninati**

Hey, guys. It's Joe on for Colin. Thanks for taking our questions.

Appreciate all the color tonight on energy storage. Can you share a little bit of detail on the density of capacity you feel like you would need in a given geography to offer virtual power plant services?

**Ed Fenster**

Well, this is Ed. So, I actually feel like in most all jurisdictions where, you know, virtual power plants are useful, which is, you know, easily 80 percent or more of our service territories were already there. And that will grow, you know, quickly over time through two factors.



First, you know, the kilowatt hours per battery installation are and will grow over time, especially as battery prices come down. And then two, as we begin to roll in electric vehicles, you know, the numbers scale very significantly.

You know, just as one example, you know, if you had 3 million electric vehicles interconnected to the grid in the state of California and each of them dispatched half their battery, you'd eliminate all fossil fuel use in the state between 6:00 p.m. and 11:00 p.m. to midnight. You know, so, the scale of the potential solution from DG is vast. And, you know, we are excited to be able to partner with grid operators and utilities to create a low-cost solution to the energy storage problem.

**Joe Beninati**

Really exciting. Switching gears a little bit. Can you give an update on the pace of permitting and any progress you all are having on automated permitting processes?

**Ed Fenster**

You know, pace of permitting is never as fast as you'd like. You know, goes better than my own personal construction projects, but we're working on it.

Certainly, we are encouraged, though, on the solar app side. More and more locations are beginning to adopt it. And, you know, the DOE has now, I think, quintupled the funding behind it.

So, it's a little bit of an IT integration challenge with the local municipalities, you know, where we need to get their IT systems integrated with Solar app. Obviously, we're able to focus on the jurisdictions that have the most solar throughput. So, hopefully, you can make progress upfront. But I think that will be an ongoing project that pays dividends over the next two to three years.

**Operator**

We'll take our next question from Philip Shen with ROTH Capital. Please go ahead.

**Philip Shen**

Hi, everyone. Thank you for taking my questions. I know you haven't provided official guidance for '22 but was wondering if you could provide some color on what '22 growth could look like versus '21's 30 percent year-over-year growth.

Mary, you said in your release that '22 could be another breakout year. So, would that suggest that your growth could come in higher than '21? Or are you referring to the magnitude of megawatts? Thanks.

**Mary Powell**

Yeah, it's going to be higher than market. That's the bottom line.

**Philip Shen**

Can you share what you expect market to be?

**Ed Fenster**

I think that what we're trying to say, Phil, is, you know, we can model market, other people can model market. And, you know, there are going to be a lot of puts and takes nationally and locally in policy and capital costs and all sorts of things.

What we're confident in is that the capabilities that we have as an organization, both as a direct, you know, originator of systems and also through our channel, are superior on average to market and therefore, will allow us to outgrow the market and are confident in that fact.

**Mary Powell**

One hundred percent.

**Philip Shen**



Okay. Thanks, guys. As it relates to subscriber value, it looks like it's going to come in better in Q4. Can you talk through how you expect subscriber value per customer to trend by quarter in '22?

**Tom vonReichbauer**

Not at this time. You know, consistent with what everyone just said here, you know, as we wrap up the year and come back on the Q4 call in February, we'll have all the details underlying our view next year.

But, you know, as Ed highlighted, you know, we got through the integration this year. We've built out a lot of strong capabilities. I think, operationally, brand strength, customer awareness, you know, making good inroads in a number of, you know, newer and emerging channels for us set us up for really strong growth and margins in the year ahead.

But, you know, we'll come out with those details when we provide the full annual outlook in February.

**Philip Shen**

Okay. Great. Thanks very much. I'll pass it on.

**Operator**

We'll take our next question from Maheep Mandloi with Credit Suisse. Please go ahead.

**Maheep Mandloi**

Hey. Good evening. Thanks for taking my questions.

Ed, maybe something for you. In the last call, we spoke about--or you spoke about potential share buybacks or changes to the reporting structure. Any update on that front or anything what you're thinking right now? Or could we expect something of that on the next call?

**Ed Fenster**

Great question. So, you know, the near-term focus is obviously on completing the integration and getting us well positioned for next year and, you know, potentially also just adapting to whatever, you know, benefits, you know, may come to pass in legislation between now and then.

You know, we are very encouraged with the growth opportunities that we face, you know, both organically and on the electrification front. And I think, you know, one of the places we've always had a good reputation as a company is in capital allocation.

You know, as we continue to generate additional cash, you know, we'll examine opportunities, you know, for capital investment, which could be to grow the business or our capabilities or it could be capital return to shareholders. And I think we'll probably touch on that a little bit more as we give the full year guidance next year.

But it is definitely something we're increasingly thinking about as, you know, the cash balance that the company has grows and as our confidence in the cash generation continues to increase.

**Maheep Mandloi**

Got you. Now, I look forward to the more details on the next call on that.

And then, Mary, maybe something for you. I think it's only been a quarter since you joined, right? And we've been stalking you on LinkedIn and seeing all the updates you put on meeting a lot of folks across the company.

So, after this kind of this tour, if you will, of the U.S., do you plan any changes? Or what changes do you think need to happen for the industry or the solar residential or industry specifically? Thanks.

**Mary Powell**

Well, thank you for that. Yes. I've been spending a lot of time out and about with all of our customer-facing teams and with our customers. And again, our strategy is all about becoming the beloved and being the





beloved trusted partner of customers on whole-home electrification and, you know, leading in the reinvention of the energy system and the grid as we know it today.

So, you know, certainly, what you will see out of us is, you know, again, really, you know, above-market growth. You're going to see us continue to focus on our obsession with customers and delivering new and innovative ways for them to strategically electrify and that is going to obviously then provide great opportunity for us as a company as well as, you know, a huge part of our focus is about how do we work with a lot of the incumbent players to really modernize the energy system and achieve those additional value streams as well.

So, again, you'll hear a lot more from us at, you know, the Q4 call as we talk about 2022 as well.

**Maheep Mandloi**

Got it. Thanks for answering the questions. Thanks.

**Operator**

That concludes our question-and-answer session time for today. And this does conclude today's teleconference. We thank you for your participation. You may disconnect your lines at this time. And have a great day.

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**Forward Looking Statements**

*This communication contains forward-looking statements related to Sunrun (the "Company") within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include, but are not limited to, statements related to: the impact of COVID-19 on the Company and its business and operations; the Company's leadership team and talent development; the Company's financial and operating guidance and expectations; the Company's business plan, trajectory and expectations heading into 2022, market leadership, competitive advantages, operational and financial results and metrics (and the assumptions related to the calculation of such metrics); the Company's momentum in the company's business strategies, expectations regarding market share, total addressable market, customer value proposition, market penetration, financing activities, financing capacity, product mix, and ability to manage cash flow and liquidity; the growth of the solar industry; the Company's ability to manage suppliers, inventory, and workforce; supply chains and regulatory impacts affecting supply chains; factors outside of the Company's control such as macroeconomic trends, public health emergencies, natural disasters, and the impacts of climate change; the legislative and regulatory environment of the solar industry; expectations regarding the Company's storage and energy services businesses, the Company's acquisition of Vivint Solar (including cost synergies), anticipated emissions reductions due to utilization of the Company's solar systems; expectations regarding the growth of home electrification, electric vehicles, virtual power plants, and distributed energy resources. These statements are not guarantees of future performance; they reflect the Company's current views with respect to future events and are based on assumptions and estimates and are subject to known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from expectations or results projected or implied by forward-looking statements. The risks and uncertainties that could cause the Company's results to differ materially from those expressed or implied by such forward-looking statements include: the impact of COVID-19 on the Company's operations; the Company's continued ability to manage costs and compete effectively; the availability of additional financing on acceptable terms; worldwide economic conditions, including slow or negative growth rates; rising interest rates; changes in policies and regulations, including net metering and interconnection limits or caps and licensing restrictions; the Company's ability to attract and retain the Company's solar partners; supply chain risks and associated costs; the successful integration of Vivint Solar; realizing the anticipated benefits of past or future investments, strategic transactions, or acquisitions, and integrating those acquisitions; the Company's leadership team and ability to attract and retain key employees; changes in the retail prices of traditional utility generated electricity; the availability of rebates, tax credits and other*



*incentives; the availability of solar panels, batteries, and other components and raw materials; the Company's business plan and the Company's ability to effectively manage the Company's growth and labor constraints; the Company's ability to meet the covenants in the Company's investment funds and debt facilities; factors impacting the solar industry generally, and such other risks and uncertainties identified in the reports that we file with the U.S. Securities and Exchange Commission from time to time. All forward-looking statements used herein are based on information available to us as of the date hereof, and we assume no obligation to update publicly these forward-looking statements for any reason, except as required by law.*