



**Q1 2023 Earnings Call
May 3, 2023
Transcript**

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Presenters

Patrick Jobin, Senior Vice President, Finance & Investor Relations
Mary Powell, Chief Executive Officer
Paul Dickson, Chief Revenue Officer
Danny Abajian, Chief Financial Officer

Q&A Participants

Julien Dumoulin-Smith - BofA
Brian Lee - Goldman Sachs
Tristan Richardson - Scotia Bank
Andrew Percoco - Morgan Stanley
James West - Evercore ISI
Colin Rusch - Oppenheimer
Maheep Mandloi - Credit Suisse
Philip Shen - ROTH MKM
Sophie Karp - KeyBanc
Luke Tilkens - Piper Sandler

OPERATOR

Good afternoon and welcome to Sunrun's first quarter 2023 earnings conference call. All participants have been placed on mute. Please note that this call is being recorded and that one hour has been allocated for the call, including the Q&A session. To join the Q&A session after prepared remarks, please press star 1 at any time. We ask participants to limit themselves to one question and one follow-up question. I will now turn the call over to Patrick Jobin, Sunrun's Senior Vice President, Investor Relations. Please go ahead.

PATRICK JOBIN

Thank you operator.

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 projections made in any forward-looking statements. Please also note 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, Paul Dickson, Sunrun's Chief Revenue Officer, and Danny Abajian, Sunrun's CFO.

A presentation is available on Sunrun's investor relations website, along with supplemental materials. An audio replay of today's call, along with a copy of today's prepared remarks and transcript including Q&A will be posted to Sunrun's investor relations website shortly after the call.

And now let me turn the call over to Mary.

MARY POWELL

Thank you, Patrick.

Hi all, we have a lot to catch up on today, so let's get going. 'Faster, better, stronger' and 'doing it right' were the themes of our first quarter as we laser focused on crushing it on the fundamentals and delivering value for our customers, shareholders and the planet.

Frankly, we pleasantly surprised ourselves with the momentum that our culture of high performance created as we entered the first quarter of our year, and we plan to accelerate this momentum as we move into the rest of the year.

In the first quarter we installed systems for over 32,000 customers, representing approximately 240 megawatts of solar capacity, 12% higher than the first quarter of the prior year, and significantly above our guidance range. Even with challenging weather conditions, including atmospheric rivers in many parts of California, our teams worked to safely install solar systems on rooftops. We did so with a higher-than-expected Net Subscriber Value and, most importantly, positive trends in customer satisfaction metrics.

We are powering a customer-led revolution to clean, affordable and locally-generated energy, and doing it at massive scale and unprecedented pace. Our Networked Solar Energy Capacity now stands at 5.9 Gigawatts and we are on track to add well over 1 Gigawatt of clean power capacity this year alone. To put that in context, the capacity we are adding this year is equivalent to an average nuclear power plant which takes decades to build. Most utility scale solar projects are generally 5 Megawatts or smaller, and take 6 to 12 months to bring online. We do well over 20 megawatts per week! Think about that... just think about that. As a former utility CEO, who knows full well the amount of time and capital it takes to build projects of scale, Sunrun is scaling at a gigawatt pace with low-risk, fast development times. The modern energy system we are developing is built efficiently on existing housing infrastructure, avoiding the intense environmental impacts that come from the massive land use tied to utility scale renewables, which would require use of five to ten thousand acres of land to produce similar scale, and would certainly take years, not quarters, to build. Most important of all is that our offerings provide what customers *really* want: clean, affordable and predictably-priced energy to power their homes, their lives and with increasing frequency, their transportation.

Based on what we are seeing in our business and across the industry, I could not be more pleased with Sunrun's competitive position and market leadership. Sales activities were up over 30% in the first quarter compared to the prior year – with much faster growth in California. Sales in California increased by more than 80% year-over-year in Q1, as we successfully helped customers lock-in value from the existing rate structure. Even excluding California, total sales activities increased by double-digits, with about half of the states we operate in growing more than 20%. Part of this outcome, of course, was the expected acceleration ahead of the changes in California, but the results are also indicative of the loss of confidence in the utility grid infrastructure, rapidly rising utility rates, and growing consumer awareness of the energy independence afforded by our products and services. Our strong traction is also a result of our ability to attract the best sales talent in the industry, eager to work with the nation's leading residential clean energy provider, especially one that leads on storage and innovation.



Sunrun is the clear leader providing clean energy as a subscription service, with over 60% share of new subscriptions across the residential solar industry. Recent trends in financing costs for loans, the growing need for advanced systems with storage, awareness of the value of service and performance guarantees, along with the uncertain economic climate, have all increased the advantages of our subscription offering. We are seeing a significant shift in preference towards the subscription offering, with the mix of new subscribers increasing nearly seven percentage points from last quarter, to 78% of our installations in Q1.

Storage solutions are not only a significant competitive advantage for Sunrun and differentiator in the eyes of customers and salespeople, they are meaningfully accretive to our margins. We have now installed more than 58,000 residential solar and storage systems across the country. While storage supply was a constraint to growth as recently as last year, supply chain conditions have improved considerably for us given our strong vendor relationships, and we are well positioned to dramatically increase the attachment rate. Our wherewithal to tackle the increasing capital intensity required for a rapid transition to high battery attachment rates positions us well to continue to lead the charge on battery adoption.

Sunrun will continue to lead with the best product offerings for customers, and deliver them in the most cost effective way possible, always prioritizing the customer experience and serving them with love, grit and ingenuity. At Sunrun we are building the beloved trusted brand that will help Americans achieve their clean energy lifestyle goals, powering their lives with the abundance of clean energy.

We have built a high performance team focused on the fundamentals, which will generate meaningful and sustainable value for our shareholders, customers and employees. This has been a central factor in our ability to adapt to market changes with rapid speed and decisiveness. Our team not only stood up the infrastructure to process a wave of orders and qualify customers under California's prior rate structure in a way that maximized value for our customers and Sunrun, but we also started selling under the new rate structure with a compelling subscription offering faster than others in the industry. I have always espoused that culture eats strategy.... for breakfast, lunch and dinner, and our team culture is all about the kind of high performance collaboration that drives strong execution, and growth.

We're starting to see the progress on these elements, with improved field efficiency, improving customer satisfaction rankings, and continued innovation.

An example of our focus on operating efficiency is the work we are doing to streamline field operations. We moved to job-site delivery of equipment in many geographies, allowing crews to spend more time at customer locations instead of branches, increasing productivity, employee engagement and customer satisfaction. As an anecdote, we improved installation crew efficiency by approximately 17% in March compared to the prior year.

Driving the best financial outcome is critical to our success as we focus on growth and scale, and is directly linked to how we increase the accessibility of solar energy across the country and make the largest impact on our communities and the environment. Last month we published our sixth annual Impact Report. This is an inside view into what drives us as a company and how we operate the business – our purpose, our mission, and our people-first approach. I'm so proud to share the many amazing initiatives at Sunrun and the positive impact our important work is making on the planet.

Concluding Comments

In summary, the Sunrun team is driving meaningful long-term value by focusing on sustainable, profitable growth, crushing it on the fundamentals, and accelerating the customer-led revolution in clean independent energy lifestyles. This is the company that is focused on producing strong unit margins which can enable strong, recurring cash generation.

I will now turn the call over to Paul Dickson. Paul is Sunrun's Chief Revenue Officer and is a tremendous asset on our executive team, overseeing our go-to-market strategy, sales channels, product strategy and



technology development. He was one of the early leaders at Vivint Solar and a pioneer in the industry, building tremendously successful, impactful and mission-oriented organizations. Over to you Paul!

PAUL DICKSON

Thank you Mary.

I'm thrilled to share updates on Sunrun's market position and how we are poised to accelerate our market share in quarters ahead, as well as the exciting innovative offering we just launched in California. Our subscription offering, which makes going solar easy, is extremely well positioned in the marketplace, and the advantages of a diversified multi-channel go-to-market strategy, paired with a vertically integrated business is beginning to really demonstrate its strength and ability to adjust to market conditions and drive responsible growth, and improving margins.

Strength of Multi-Channel Sales Model

Sunrun goes to market through multiple channels – our direct-to-home sales force, which is comprised of regional teams who sell direct to customers; our field sales organization, which leverages leads through our presence in retail stores, such as Costco and Home Depot; our national inside sales organization, which helps customers from our digital channels go solar through a virtual process; our business to business routes which include low income multi family and new homes, and last but not least our affiliate partner program, which we used to refer to as channel partners, where we partner to round out our go to market strategy with the sharpest and most innovative large, regional operators.

Our multi-channel go-to-market approach delivers meaningful advantages at different moments in time. For instance, our Direct-to-Home organization is particularly well situated to find customers and create density in targeted locations due to the mobile and nimble nature of the organization. This is especially helpful to address the location-specific investment tax credit adders for low-income and Energy Communities. Additionally, our Direct-to-Home channel often reaches customers who have not already understood the value of solar and storage. Our national inside sales organization can flex resources in areas where needed, and serve customers desiring to be met through virtual engagements. Our Field sales organization helps customers who wish to shop through companies they are already familiar with as they meet our associates working in big box stores. Lastly, our affiliate partners allow us to expand our reach, share best practices, and benefit from deep local knowledge. Having the solar industry's largest internal sales force, many times over, and deep integration with our key affiliate partners enables us to meet customers most effectively, and move quicker to meet market conditions.

California NBT Transition & Shift Launch

Leading up to the transition from NEM 2 to the new rate regime, called Net Billing Tariff or NBT, we saw tremendous growth in new orders. With Q1 sales growing over 80% year-over-year in California, we were able to build a pipeline of over 20,000 customers, representing 150 megawatts. This pipeline will be installed over the next couple of quarters.

The vertically integrated nature of our business enabled us to align quickly with sales, design, technology, supply chain, operations, and customer service, not only to ensure that NEM 2 projects were submitted properly and on time, but also to launch a product to address the needs of customers under NBT.

I am extremely excited about the new offering we launched in California, called Sunrun Shift. This is the innovative offering we alluded to on the last earnings call. It incorporates storage to optimize the economics of energy produced by the solar system. It does this by charging up the Shift device with daytime solar production, rather than exporting at low-value rates, and by enabling self-consumption in the evening during peak utility rates. This system delivers a far better customer offering than solar alone and will be easier and quicker to install than full battery backup. This new offering delivers a strong value proposition for our customers, and a strong Net Subscriber Value for Sunrun. Another benefit is that Shift



customers are able to participate in grid service opportunities, providing enhanced value over time to these customers, Sunrun, and the grid.

Because of our leading position on innovation and investments in advanced product development, we were able to launch a solution that meets utility needs and provides incredibly strong savings for most customers, in a range from approximately 10 to 30 plus percent. At these robust savings levels, we are seeing over 85 percent of customers select Shift or battery backup since launch. Bottom line – at Sunrun, California is open for business.

As expected, immediately following the transition in early April we saw a decline in sales activities. Part of this was driven by the sales teams spending more of their time advancing a larger than normal pipeline, which was created from the policy change, while simultaneously refining the explanation of the new Shift offering. We have seen a strong rebound in sales activities, increasing 25% week-on-week, and we are already back to approximately two-thirds of the level from one year ago. We expect the rebound to continue.

With Shift preserving strong customer savings, sales activity rebounding nicely, and the strong sales-driven pipeline we built prior to the policy transition, we expect to deliver year-over-year growth in the quarters ahead in California.

I'm extremely proud of the way the team came together to leverage our diverse routes to market and our innovation to deliver strong growth and attractive unit economics. The resiliency, flexibility and ingenuity our sales leadership demonstrated was amazing.

With that, I will turn the call over to Danny for the financial update.

DANNY ABAJIAN

Thank you, Paul.

Today I will cover our operating and financial performance in the quarter along with an update on our capital markets activities and outlook.

Turning first to the results for the quarter.

Volumes

In the first quarter, Customer Additions were approximately 32,400, including approximately 25,200 Subscriber Additions. Our Subscriber Additions were 78% of our total Customer Additions in the period, a meaningful increase from 72% last quarter. Our recent sales activities, and the forthcoming benefits from the tax credit adders in the Inflation Reduction Act, which are only available to the solar subscription model, indicate the mix of Customer Additions is likely to continue to shift more toward Subscribers in the quarters ahead. Solar Energy Capacity Installed was approximately 240 megawatts in the first quarter of 2023, a greater than 12% increase from the same quarter last year, and significantly exceeding our guidance of 215 to 225 megawatts.

We have now installed over 58,000 solar and storage systems. We expect storage installations will grow rapidly in the quarters ahead and attachment rates will increase meaningfully, particularly in California due to the transition to NBT, which will drive customers toward our Shift and home backup offerings. Our backup-power storage offerings not only provide customers increased value from energy rate optimization and backup power capabilities, but they carry higher margins, typically by several thousand dollars per customer. We expect our Shift offering will achieve margins that are similar to prior solar-only margins realized in California under NEM 2. Our ability to satisfy demand for storage installations with superior operational fulfillment is a clear differentiator for Sunrun in the marketplace.



We ended Q1 with approximately 830,000 Customers and 692,000 Subscribers, representing 5.9 Gigawatts of Networked Solar Energy Capacity, an increase of over 20% year-over-year. Our Subscribers generate significant, recurring revenue with most under 20- or 25-year contracts for the clean energy we provide. At the end of Q1, our Annual Recurring Revenue, or ARR, stood at \$1.1 billion, up over 23% over the same period last year. We had an average contract life remaining of over 17 years.

Subscriber Value, Creation Cost, Net Subscriber Value & Total Value Generated

As we noted on the last call, commencing with Q1 reporting, our present value-based metrics are now presented using a 6% discount rate, reflecting the higher cost of capital environment. We continue to provide sensitivity tables to allow investors to adjust these figures as they see appropriate. Furthermore, our cost of capital, advance rate and proceeds commentary reflects realizable outcomes based on current market conditions.

In Q1, Subscriber Value was approximately \$44,000 and Creation Cost was approximately \$32,000, delivering a Net Subscriber Value of \$12,000, exceeding our guidance of approximately \$10,000. The sequential decline from Q4's Net Subscriber Value of \$16,600 was primarily driven by the change to our discount rate assumption. Pro-forma using a 5% discount rate, Net Subscriber Value would have been \$15,761 in Q1. After isolating the discount rate impact, the remaining \$839 decrease from Q4 was driven by typical seasonal effects of less favorable fixed cost absorption and accelerating sales activities ahead of volume recognition, offset partially by more favorable pricing. Our Q1 Subscriber Value and Net Subscriber Value both assume a 30% Investment Tax Credit and thus exclude any benefits associated with the tax credit adders, as final guidance is still pending.

We are seeing easing supply chain conditions and substantial cost reductions across our key hardware components, which should provide further unit cost reductions as we work through inventory. These beneficial trends may be obscured, however, by an increasing mix of storage, which carries higher net margins, but will increase hardware and install costs and therefore impact Creation Costs.

Total Value Generated, which is the Net Subscriber Value multiplied by the number of Subscriber Additions in the period, was \$302 million in the first quarter. This represents an almost doubling compared to the prior year period, even without adjusting for the less favorable discount rate used this year.

Each quarter we provide ranges for advance rate, measured as a percentage of contracted Subscriber Value, that reflect current capital costs. We finance our systems upon installation with tax equity and project-level non-recourse debt, which monetizes a portion of our Subscriber Value. Our advance rate ranges allow investors to approximate proceeds from all sources, net of fees, and gauge the obtainable net cash unit margins on deployments.

As you can see on slide 10, as the cost of capital increased over the last year, advance rates declined. We currently estimate advance rates are approximately 80 to 90 percent of Contracted Subscriber Value, consistent with the range we shared last quarter, and recent market transactions would imply our advance rate is around the midpoint of this range, slightly skewed toward the low end.

You can also see on slide 10 that our steadily increasing Subscriber Values, due primarily to price increases and numerous other profitability actions, have allowed proceeds as measured at the midpoint of the advance rate ranges, to increase modestly and mitigate increases we have faced from higher capital costs.

Gross and Net Earning Assets, Cash Balance

Turning now to Gross and Net Earning Assets and our balance sheet.

Gross Earning Assets were \$11.6 billion at the end of the first quarter. Gross Earning Assets is the measure of cash flows we expect to receive from customers over time, net of operating and maintenance costs, distributions to tax equity partners in partnership flip structures, and distributions to project equity financing partners, discounted at a 6% unlevered capital cost.



Net Earnings Assets were over \$4 billion at the end of the first quarter. Net Earning Assets is Gross Earning Assets, plus cash, less all debt. Net Earning Assets declined compared to Q4 owing primarily to the change in discount rates. Pro forma for a 6% discount rate, however, the decline was slight and for a few reasons, including increased inventory and timing of sales and marketing costs, as well as timing of project finance activities. We expect Net Earning Assets to grow meaningfully over the next several quarters.

We ended the quarter with \$843 million in total cash, a decline of \$110 million compared to the prior quarter, principally driven by working capital consumption and timing of project finance activities.

Capital Runway

We continue to maintain a robust project finance runway. As of today, closed transactions and executed term sheets provide us with expected tax equity capacity to fund over 450 megawatts of projects for Subscribers beyond what was deployed through the first quarter. Sunrun also had \$522 million in unused commitments available in its \$1.8 billion non-recourse senior revolving warehouse loan at the end of the quarter to fund over 175 megawatts of projects for Subscribers. We priced a \$327 million securitization last week which is scheduled to close next week, significantly increasing the available capacity in our warehouse loan. This strong capital runway allows us to be selective in timing our capital markets activity.

Outlook

Turning now to our outlook.

We continue to guide growth in Solar Energy Capacity Installed to be between 10 and 15 percent for the full year 2023, which we believe will result in market share gains. We see more upside opportunity than downside risk in achieving growth in this range, and expect to finish the year around the high-end of the guidance range. As we obtain more California sales data and further Treasury guidance on the tax credit adders we may increase our outlook next quarter.

We expect our storage attachment rate will increase significantly in 2023 from approximately 15% both in 2022 and Q1.

In Q2, we expect Solar Energy Capacity Installed to be in a range of 270 and 290 megawatts. This represents double-digit growth year-over-year and double-digit sequential growth from our Q1 installations, and implies second-half growth squarely on track with our full-year guidance.

We expect Net Subscriber Value to increase sequentially in the second quarter and to be materially higher in the second half of the year compared to the first half.

We are focused on delivering profitable growth while adapting to the economic and regulatory environment. Coupled with the likelihood for substantial value from ITC adders, this places us on a path to achieving our goal for meaningful cash generation.

Capital Markets

Turning briefly to our capital markets activities and outlook.

After a period of rapidly increasing rates in 2022, our cost of capital has recently stabilized. We currently see capital costs in the mid-six to mid-seven percent range, skewed slightly toward the high end of the range.

While the events around the banking sector garnered significant headlines in March, there was no adverse impact to Sunrun. We responded to developments quickly and decisively, and numerous capital partners reached out to us indicating interest to step into another lender's funding commitments, which we ultimately did not need. We continued to utilize our lending facilities without interruption throughout the entire period and continue to do so today.



We raise capital commitments in advance and from a diverse set of institutions. As we install systems for customers, assets are placed into our non-recourse revolving warehouse facility. This facility includes a diverse group of nine lenders. As assets are aggregated to form appropriately sized pools, typically in the \$200 to \$500 million range, we execute term-out financings, raising non-recourse capital either in the securitization market or directly with banks. Because of the revolving nature of the warehouse facility, we can be selective when we choose to execute term-out transactions. We periodically extend our warehouse availability and upsize it to accommodate a target of at least a year's worth of new subscriber additions.

Contrary to fears about the capital markets being closed for our asset class, debt markets have remained solidly open. The durability of these sources of capital is intuitive as lenders appreciate our stable, predictable, cash-flow producing assets that are backed by a diverse group of high-FICO customers with a proven incentive to pay.

Demonstrating our continued access to capital and recognition as a leading sponsor, last week we priced a \$327 million asset backed securitization. The senior tranche of 'A-' rated notes priced at a yield of 6.13% and at a credit spread of 265 basis points. The book was solidly oversubscribed with a diverse set of both repeat Sunrun investors and numerous new entrants. The yield we achieved was over a half point better than a similar transaction in the sector which priced within a week of our transaction.

As we've shared before, we regularly enter into interest rate swaps to hedge capital costs on our newly installed customers. We are principally exposed to interest rate fluctuations between customer origination through shortly after installation. Around the time of installation, our systems are financed with project-level non-recourse debt. Nearly all of this financing is insulated from near-term interest rate fluctuations, as our debt is either fixed-coupon long-dated securities, or floating-rate loans that have been hedged with interest rate swaps.

The longstanding relationships we have cultivated with many capital providers in multiple markets, our reputation as a high-quality sponsor, and the consistently strong payment performance trends of our customers through multiple economic cycles, affords us ready access to capital.

With that, let me turn it back to Mary.

MARY POWELL

Thanks, Danny. Thanks, Paul.

I am so appreciative of our hard-working team whose incredible passion for the work we do and commitment to our purpose helped deliver another quarter of strong results. Our team is laser focused on accelerating the strong momentum, driving continued efficiencies across the business, and generating more value for our shareholders, our partners, and our customers. One of the greatest joys of my role is the time I spend every single quarter out in the field seeing our employees in action, talking to our customers, and literally witnessing the dramatic acceleration of this customer-led revolution ... as we like to say at Sunrun, LET'S RUN. Operator, that's your queue -- let's open the line for questions.

Operator

Thank you. [Operator instructions.]

Our first question comes from Julien Dumoulin-Smith with BOA. Please state your question.

Julien Dumoulin-Smith

Thank you. Good afternoon, team. Thank you. Thank you very much for the time. Nicely done. Hey, team, look. Hey, afternoon, Mary. Thank you. Look, on the net subscriber value, obviously, it's trended lower to 12,000, but your commentary about being materially higher in the second half of '23, can you give us any greater sense here? I mean is this back to the highs that we saw in the last quarter, say? Or any sense on where you're trending here and especially, is that pro forma for the higher discount rate?

Danny Abajian

Yes. That is reflecting the higher discount rate. Hey, Julien, it's Danny. That is reflecting the higher discount rate. So it's the sequential trending from here on out for the balance of the year. Part of the Q4 to Q1 move involved seasonal volume declines, as you saw in our result there with some negative operating leverage effects as you see, the Q-over-Q decline as well as the massive ramp as we noted in sales activities causing the sales and marketing costs to also be elevated in the period.

So we'll continue to see the volume increases cause us to regain the operating leverage as we continue to move the customer values up and we improve margins net-net as we see continuously like higher pricing, more battery attach, just a shift towards higher-value systems also take effect. And I'll just point out the 12,000 was in relation to an expectation we had of approximately 10,000 in the period.

Julien Dumoulin-Smith

Got it. All right. You're not prepared to necessarily share something more specific quite yet. Look, if I can, just on the other side of this, this is bigger lease versus loan debate out there of late. Certainly, a lot of different growth rates being thrown out, including yourself here on a growth rate. Can you talk a little bit about the migration towards lease and what that means for you guys, how differentiated your growth rate might be versus, say, the overall market? And then specifically within that, can you talk about your ability to attract incremental dealers and potential partners to your lease product?

Mary Powell

Hey, Julien, it's Mary. Great to hear you. Yes. And I would say just to drive home Danny's point, like we were -- yes, we were very enthusiastic about coming in at the 12,000 level on net subscriber value and feel, obviously, it bodes very well for the year as we see preference leading to your next question, towards the subscription model. And in fact, as you know, as we noted in the script, we saw that go up 7% to 78% of the installed volume in Q1. And with so many pressures on loan pricing, pressures in the context or opportunity in the context of the IRA adders, we continue to expect to see further momentum towards the subscription service.

And again, as you know, we basically are at 60% of the market now. So we are leading. We've been at this for 16 years. We see continued differentiation in the market for Sunrun not just in the context of the subscription service, but also in the context of how pleasantly surprised we've been at the volume uptake on our new shift offering already in California post policy transition. Which in many ways shouldn't be surprising because we're still offering savings of anywhere from 10% to 30% to customers in California with this new Sunrun Shift offering.

So I think there was something else in your question that I missed. So on dealers, Paul, do you want to hit that?

Paul Dickson

Yes, happy to. Thanks, Mary. So one of the things that we're seeing is the strong migration of people out selling in the market, returning back to or coming to Sunrun and joining our internal sales forces as well as strong migration of smaller players kind of the long tail migrating to our larger regional affiliate partners. And I think Sunrun and our partners' ability to install batteries and increasing attractiveness of that in the market is driving a lot of that. There's also a lot of understanding around the forthcoming benefits of IRA adders and people are looking forward to that and moving accordingly.

Operator

Thank you. Our next question comes from Brian Lee with Goldman Sachs. Please state your question.

Brian Lee

Hey, everyone, thanks for taking the questions. I guess, first off, on the guidance, just if I take the second quarter guidance on installed capacity, your first half run rate is basically in line with your 10% to 15% year-on-year growth target for all '23. So it kind of implies you're expecting no slowdown into the second half. Is that, number one, fair? And then maybe also if you could just talk to seasonality in the second half, if it's going to be a bit more pronounced than we historically are used to just maybe into 4Q given all the California backlog dynamics? That would be helpful.

Danny Abajian

Yes. So we've said, I think, and also in the past, this year, on the pacing of installed volume sequentially as we go through the year, we do expect that to look more steadily improving. And a large driver to that is the size of the enormous backlog we were able to build up based on the strength of the sales volume in Q1 and as we move through the rest of the year and particularly in California, as we see the storage attach rates go up, those do consume more labor hours. So as we take an elevated size of pipeline and move that through the funnel and do so with increasing battery attach, we do see a steady kind of gradual growth in sequential volumes. And we also see an elevated size of pipeline still exiting the year implied within the volume that we guided to.

Brian Lee

Okay. Great. That's helpful. And then just a second question around the financing environment. I know, Danny, you said during your prepared remarks, you're not seeing any adverse impacts from some of the banking turmoil that's out there. I guess, asking it differently, are you seeing any opportunities? Maybe it's too early, but in the context of Julien's earlier question, is some of your share gain opportunity actually coming about maybe because of your financing strength relative to what else is happening out in the market? And are you able to maybe noticeably see any of those trends actually playing out here in the past few months?

Danny Abajian

Yes, I think it absolutely is. I think we just our poise and confidence just around the durability of capital markets. The fact that we do keep warehouse financing. We do keep unused runway of capital to fund our business, and we see that looking out weeks, months, quarters, and also from like a relative value standpoint as we see cost of capital move in slightly different ways between the subscription offering and the loan offering, I think there's been a relative value shift for sure, kind of implicit in how financing costs have moved depending on the mode of financing.

So putting all that together in addition to just kind of the sponsor reputation that we carry in the market and the ability to have meaningful conversations with capital providers, whether it's BIC syndicated transactions, even large-sized smaller bilateral type conversations, just having so many different routes and options does give us the kind of the poised confidence to deliver on the rest of the business as well.

Operator

Thank you. Our next question comes from Tristan Richardson with Scotia Bank. Please state your question.

Tristan Richardson

Hi, good afternoon. Appreciate the comments on April, particularly in California. You noted seeing maybe activity back to two thirds of the level a year ago. Curious maybe where you're seeing that in terms of attach rate as well. I mean we all kind of assume that this bundle becomes somewhat standard in California. But curious if you're seeing that just in these early signs of that data.

Paul Dickson

Yes, Tristan, thanks for the question. So we definitely are. We're seeing more customers than before migrate to full battery backup, but we're seeing a really high attach rate on that Shift product as customers learn and better understand the dynamics of the new rate regime and select the product that addresses those most effectively. And so we've come out of the gates at well over 80%, as I mentioned earlier, and expect that to continue to climb.

Tristan Richardson

Appreciate it. Thank you. And then maybe just anything of note to talk about outside the state of California, maybe what you're seeing on the lease product side in some of the lower electricity cost dates.

Paul Dickson

Yeah. Great question. It's interesting to see on these markets that have lower cost basis and the value and attractiveness of the subscription model. Customers are still able to lock in attractive savings profiles,

which makes it a really attractive offering for them, where the loan has had to raise rates at a far higher pace and we've seen more migration and really strong growth in several of our other markets. About half of the states we operate in are growing at over 20%, not counting California.

Operator

Thank you. And our next question comes from Andrew Percoco with Morgan Stanley. Please state your question.

Andrew Percoco

Great. Thanks so much. I just want to follow up on the battery attach rate question. Just curious in terms of where you stand with suppliers. Is there a need to expand the supplier base for battery storage to keep up with demand for battery storage in California?

Paul Dickson

Yeah, we actually feel really good about our line of sight into our battery supply. We're seeing a lot of really great products in the market. We have diverse vendors that we're able to source from and we're seeing some compression on cost of product that we're able to benefit us and our customers. So we feel really good about the agreements we have, the diversity of vendors, and the price point.

Andrew Percoco

Great. Thanks. And maybe just one follow-up on the guidance in terms of net subscriber value over the course of the year. Are you able to bifurcate how much of that is coming from additional pricing actions or cost declines versus a mix shift to battery storage?

Danny Abajian

I think generally, we would expect, notwithstanding the Q1 increase in costs, which I said was kind of somewhat volumetrically driven. As we kind of get volumes back up, we probably see costs moderate, even decline. And then the vision there is to hold it flat and partly should be driven as we get further and further into the year some benefits and tailwinds from supply chain costs. But generally, a story of flattening out in costs and continually increasing the subscriber value as we get customer values up from higher -- realization of higher pricing. So some of it is just pricing increase and I would say the balance of it being the shift towards more battery attach, which delivers higher value customers from a monthly payment standpoint as well.

Operator

Thank you. And our next question comes from James West with Evercore ISI. Please state your question.

James West

Hey, good afternoon, guys. So, Mary, Danny and Paul, you guys were all very bullish on storage. You've gotten a couple of questions on it so far. I think we all understand the NEM 3.0 and now we know about the Shift subscription service. Curious -- the additional attachment rates that you're looking for, is this primarily a California thing? Or are you seeing that spread out to other states?

Paul Dickson

Yes. Great question. Thanks, James. We're seeing really strong growing demand for battery across our entire portfolio. Obviously, it's more pronounced in California with the compressed gap between Shift and upgrading to full battery backup. But as the grid ages and more climate events take place, more consumers become aware of and experience the need or benefit of that storage. And so we're seeing growing attach rates on the consumer side and strong demand in the industry from a sales force perspective, desiring to enter into workforce with an organization that has the ability to execute the sourcing of them as well as the deployment of them.

James West

Okay. Thanks, Paul. That's very helpful. And then another question on the moving to site deliveries. I thought that was pretty interesting that you're giving -- putting more equipment on site. And I was wondering if you could quantify or maybe qualify a little bit how much of the jobs are word (ph) on that previously are (ph) on that way now and what you expect that to shift to over time?

Mary Powell

Yes. Great question. I mean, again, the team has just continued to make remarkable progress over the last year and continuing to drive operational efficiencies, both in the context of the size of folks it takes to safely do installs. So we've improved the efficiency from a sort of perspective of how many installers per job and this was a great other step forward where we just do job site delivery. So in essence, the crews get to just show up at the first home, and it really allows you to also get to multiple installs in one day because you have the crews moving and you have the delivery of the job packages efficiently delivered by one truck that brings them around to the different sites. So yes, we're very excited about it. It's made a huge difference in the geographies that we're already using it, and we're going to be rolling it out through the entire country this year.

Operator

Thank you. And our next question comes from Colin Rusch with Oppenheimer. Please state your question.

Colin Rusch

Thanks so much. Can you talk about how many different markets you can monetize the VPP services in 2023 and 2024? Just trying to get a sense of the order of magnitude on that as we go through this year and next.

Mary Powell

Yeah. No, it's a great question, particularly when you think about like the scale, the massive scale, as I said in my remarks, I mean, again, we're going to be bringing online the equivalent of a nuclear power plant. So my view from a -- particularly as a former utility executive is that opportunities are only going to dramatically increase in the coming years.

That said, as you know, we just announced not long ago, a partnership with PG&E, we're really excited about, that's really positive for this summer. Those customers that we're selling Shift products to right now will be able to participate in that program as an example.

So in total, we probably have about a dozen VPP programs around the country. We're consistently evaluating them in the context of ensuring that they really hit the sweet spot of being meaningful for customers, meaningful for Sunrun. And I'm just so excited by the evolution I've seen in this space. And I think the PG&E partnership actually is a really good example of a program that is very beneficial for customers and very accretive for Sunrun.

Colin Rusch

That's helpful. Thanks. And then with clarity on the -- from treasury on some of these adders, what's your latest thought on this? We're getting data points all over the map, but curious what you're hearing from folks and how you're building that into the underwriting process at this point?

Danny Abajian

Yes. We've been so far in the metric that we just reported for customer value, that fully excludes the adders. As we look at the three buckets of adders, energy communities, low income, domestic content. We've gotten treasury guidance; I think more is forthcoming on those two. And we've -- energy communities, we look at that. There's a little bit of a range as we parse through data and kind of get that -- get those views finalized. But we expressed a range of mid-single digit to as much as mid-20s percentage of our current footprint.

Now this is without considering any adjustments to our footprint where we, again, the 60% roughly market share of the subscription model where these adders are uniquely available to. There's also an opportunity to increase the mix through deliberate action. But energy communities, we have it in a range of \$20 million to \$100-plus million low income. That's 10% for low-income single-family housing, low-income multifamily at 20%. That could be as much as one third of our business, again, existing footprint without adjustments and the timing for that is looking like Q3, Q4 at earliest.



So that's kind of more coming in exiting the year and into next year. But again, on an annual run rate type of number 0 to \$150 million, \$150 million plus at the top end of the range, but we have that as close to 0 for this year as far as our planning expectation. And depending on the timing, we see that as upside. And then domestic content treasury guidance is forthcoming, and we have early traction with domestic supply.

On the last call, we talked about U.S.-made module equipment of nearly 200 megawatts that we had access to this year. But again, treasury guidance is forthcoming on that element, and we'll get more clarity and give it to you all over time.

Operator

Thank you. Our next question comes from Maheep Mandloi with Credit Suisse. Please state your question.

Maheep Mandloi

Hey, good evening. Maheep Mandloi from Credit Suisse. Thanks for taking the questions here. First, maybe just on the shift of the battery products. And I think in the prepared remarks, you talked about gross margins being similar to that of solar and NEM 2.0. But curious, how should we think about net subscriber value for either of those battery products versus solar product in Q2 or in the second half of this year?

Danny Abajian

Yes. So the California solar-only and the California Shift are in a kind of directionally similar range. And then the -- to the extent we convert with solar backup. So the non-Shift product in California, that looks like the traditional kind of storage attach, which we've said is a few thousand dollars per customer. It can be as much as a few thousand dollars per customer higher. So for the majority of California, we would expect similar pre and post. The customer savings range is probably a little bit different. Our margin is a little bit different, but both still -- on both dimensions, still quite robust and on the profitability, similar range.

Maheep Mandloi

And then just a housekeeping on the G&A per customer. We saw an uptick sequentially in year-over-year, and the platform margin, we saw a decline. Just curious on both those buckets, how should we think about that going forward? And specifically, any reason for that uptick in Q1 for them.

Danny Abajian

Yeah. G&A. If I look at G&A, still down quite considerably on a per customer basis as you look out over the last year or two. In Q1, specifically, we saw increased spend probably on a gross dollar basis, just growth in the business, but I would say much more impacted by the decline in volume. So again, negative, that's one of the places where negative operating cost leverage showed up as we saw a sequential decline from Q4 to Q1 on our volumes.

So that was -- and then on the platform services or you can also see it in the product sales margin, we did see a bit of a decline there. Again, similar story to the extent of system sales. So these are the systems we sell either for cash or more typically with a loan product that's provided by a third party, where that looks more like a kind of a simple gross margin and we did see similar kind of volume impact. So there's some of that.

And then included in that number is also the gross margin of our distribution business called AEEE in which we did have declining margins in the period, largely due to elevated inventory levels in that business line and some price declines in the period that did depress the margin as we moved equipment through that business.

Operator

Thank you. The next question comes from Philip Shen with ROTH MKM. Please state your question.

Philip Shen

Hey, guys. Thanks for taking the questions. First one is on customer additions. You maintained your annual guidance. You had a really strong and nice Q1 customer addition number. What's holding you back from taking up the annual guidance from that 10% to 15% range higher? And what are some of the risks that



you might be concerned about and perhaps contributing to you guys holding back from increasing the annual guide? Thanks.

Danny Abajian

Yes. I think directionally, we did kind of give out the message that we're more skewed towards the high end of the range. We will -- the evaluation of whether or not to move it will depend on just us getting more weeks of traction in California. We are seeing a positive and encouraging trend over what timeline and to what degree we see sales move up from here will impact.

Obviously, we also said there's a backlog in California so from a risk standpoint, like coming into the period, we were able to build up volume more so than we had planned for. And now we're just watching the kind of the week-over-week. Being a month in, we felt like it was a little too premature to kind of call any differences related to California, which is a substantial percentage of our overall mix. And then we have on the other side, opportunity can come from IRA adders. The timing, the amount really matter to how they might be meaningful volume drivers for this year.

And then lastly, I would say again, the shift towards more battery attached means we have a kind of a different productivity or labor efficiency in terms of number of hours. And we want to see -- we have -- we think we have opportunity there, and we want to see more of that opportunity before that moves us to change anything.

Philip Shen

Great. That's a lot of detail. Thank you, Danny. Follow up here is -- So in terms of net subscriber value, can you quantify what does materially higher mean for back half '23? Can you also share perhaps the mix of the drivers? Is it -- if you expect more X more dollars on average, what percentage of that is driven by lower cost of capital that you anticipate or equipment pricing coming down or higher pricing or something else I may not have listed?

Danny Abajian

Right. Yeah. Good question. So net subscriber value driven by subscriber value of the kind of the top number, what we would not anticipate any of the difference directionally to be from interest rates. So we've run those at the new 6% discount rate. We have intention to hold that for the rest of the year, the kind of the cost of capital environment has moderated. So that wouldn't be a driver.

As far as magnitude of change, it could be a few thousand dollars per customer, so meaningful. And from a trending standpoint like similar to how we've achieved in the last year. Like if you look at subscriber value over the last year, since Q4 2021, we've pulled that number up 23%, 19% year-over-year. This is -- I believe this is without adjusting for the discount rate even. Those are off of large -- directionally much larger pricing increases. I think the pricing increases probably the frequency and the pace of it is regular, but I think the significance of it is smaller. Again, largely, it will be I think the largest driver will be the battery attach as we get just kind of the higher monthly payments, generate higher system value, but we think it's potentially a few thousand dollars per customer.

Operator

Thank you. Our next question comes from Sophie Karp with KeyBanc. Please state your question.

Sophie Karp

Hi, good afternoon. Thank you for squeezing me in. Maybe going back quickly to the loan versus lease debate and illustration that you provided on slide seven. I was wondering if you could maybe add a little context around this because what it shows is that the difference to rate payer is about \$7 per month, right, in the lease and the Sunrun subscription model. Is that enough to drive the shift? Or can the lease players -- I'm sorry, loan players kind of move the economics to meet that same level of customer savings and level the playing field? Like how should we think about this?

Paul Dickson

Yes. So when customers are evaluating the options of solar, the subscription model versus a loan, the monthly payment is obviously a consideration that they make. But the lifetime cost of the system is



probably the most important comparison that consumers make. And so in Sunrun's subscription model, you have your monthly payment, and that's your cost. We as the owner of the asset, service the system, maintain the system, and plan to replace any parts that need to be replaced in that 25-year on track duration. So your inverter, for example, needs to be replaced, if you buy battery backup as part of your offering, that's expected and priced in to be replaced in that monthly fee.

On a loan product, you pay that monthly fee that's more expensive out of the gate in most cases than the subscription. But then at year 10, you're spending thousands of dollars replacing your inverter or battery or whatever product may be. And then in many cases, on the hook for regular service and maintenance. And so on an overall lifetime value, that's the big difference that we're kind of signaling and why we're bullish on the strong migration to the subscription offering.

Mary Powell

With the subscription, the way I like to think of it, Sophie, is you -- we're selling peace of mind. It's less expensive and you get the peace of mind of not having that worrying concern over the life of the contract.

Sophie Karp

Got it. And my second question real quick, maybe on your Shift product offering. Could you clarify what exactly is the difference between this offering versus just regular battery? Is it just the size of it is smaller versus the regular battery backup or -- what are the differences versus just the normal battery plus storage product that's been available before?

Paul Dickson

Yes. Great question. So the product itself is a battery. And the big difference is how it's constructed and configured inside the home. So a battery that is set up for battery backup requires more intense permitting and electrical work to load -- to relocate the loads that are needed to back up the home. Where the Shift device is set up essentially to perform rate arbitrage and hold power that can then be self-consumed by the customer or dispatch to the grid at peak times or for grid service participation. And so it's really -- the main difference is how the battery is set up and wired into the home and the efficiencies gained by bypassing a lot of the cumbersome components of full battery backup.

And so when we look at the functionality of a Shift device, we actually have to preserve none of the battery capacity for backup. So in an opportunity where you're looking at grid services, you have the full capacity of the battery available to maximize grid service opportunities or pushing back power to the grid at peak demand rates to maximize value to the customer.

Operator

Thank you. And our final question comes from Luke Tilkens with Piper Sandler. Please state your question.

Luke Tilkens

Hi, thanks for taking the question. You mentioned that cash declined by about \$110 million, and that was a result of working capital as well as project finance timing. Should we expect Q1 to be the low point in corporate cash to increase over the course of the year?

Danny Abajian

I think we'll give more -- when appropriate, we'll share more on the element of cash generation. I would say, from a trending standpoint, if you go from Q4 to Q1, you can see it on the balance sheet, the meaningful increase in inventory balance happening at the same time as we're seeing the seasonally low volume, coupled with the more than normal uptick in sales activity, which it's not just the sales and marketing costs that get elevated. As you move that pipeline through the operational funnel, you start to spend dollars to advance and install, where the cash comes in at the time of install. So it's all the costs leading to installed trailing ahead of the actual cash event upon install, both from tax equity and warehouse facilities. So that's all the timing impact. We will have turned the corner on the seasonal aspect. And then as far as specific cash trajectory, we'll talk about that more when the time is appropriate.

Luke Tilkens



Great. Thank you. And then just for a follow-up. Have you talked with the DOE on the guarantee program that they've been doing out there? And is it something that you think you could do on the lease side?

Danny Abajian

Yeah, we've definitely, you know, we have, over a much longer period, looked at the program. And to your question specifically, how you might structure it through a kind of subscript like tax equity financed subscription model. I think we've also looked at just kind of capital markets also being open and attractively priced. From an upfront cash standpoint, the advance rates that result from that, relative to a program that would be potentially multiple years, have a lot of complexity to work through on the --specifically on the tax equity side, we've evaluated it. We continue to do it. That program is available to the industry for use. And I think more complex, again, on the tax equity structuring, but capital also attractively priced away from the program.

Operator

Thank you. And that concludes the time that has been allotted for Q&A. You may now disconnect.

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Company's ability to meet the covenants in the Company's investment funds and debt facilities; factors impacting the home electrification and 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.