
Battery + Storage Podcast: Flexible Real Estate Financing Solutions for Storage Projects With Laura Pagliarulo, SolaREIT

Host: Bill Derasmo

Guest: Laura Pagliarulo

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Bill Derasmo:

Hello, and welcome back to the Troutman Pepper *Battery & Storage Podcast*. I am your host, Bill Derasmo. With me today is Laura Pagliarulo, the President of SolaREIT. Welcome to the program, Laura.

Laura Pagliarulo:

Thanks so much, Bill. Great to be here.

Bill Derasmo:

Great to have you on today, Laura. Before coming to SolaREIT in 2020, you had senior positions at CleanChoiceEnergy and SunEdison, and you were seven years at WGL. I would note that you have a graduate degree from one of the more popular schools among high school students, where I live in Northern Virginia, and that is you have a master's degree from JMU, James Madison over in Harrisonburg. Before that, your BS from Vermont. Why don't I give you a chance to introduce yourself and let us know how your career journey led you to SolaREIT and your current position?

Laura Pagliarulo:

Yeah, that's a great question. Yeah, so you did your homework. I haven't thought about my undergraduate in a long time. I started out at the University of Vermont in the School of Natural Resources. Having a teenager now and reflecting back on where I was at his age, I didn't know at all what I wanted to do, but I did know I was very passionate about environmental issues and in particular, climate change.

Then when I looked at the assessment of where most greenhouse gases come from, it was either the transportation sector, or the energy sector, which led me into the energy space overall. Since the age of 20, and I'm quite a bit older now, I've been doing energy, renewable energy and clean energy related projects. Yeah, you're right. I spent seven years at Washington Gas and their deregulated division overseeing the voluntary renewable energy products there. I really described that as where I grew up in the energy space.

After that, I went to SunEdison and my responsibility was developing their community solar product. That was really at a point when community solar was just extremely nascent. Not very many people knew about it. The notion of having a fungible project where residential consumers could go in and out was unheard of for financing. Then after that, I spent some time with CleanChoiceEnergy, helping build their solar energy division.

Came to SolaREIT, really, my background in recent years has really just been solar. I'm a founder of the business. There are four of us. The idea was surfaced by one of the other main founders, providing developers with options for their real estate financing. Quite frankly, when it was originally proposed to me, I thought, well, that's such a boring idea. After doing community solar, that sounds so dull. Of course, some of the other ideas, it started to germinate and I started to see applicability across the space.

When a lot of these very good developers were confronted with either a large purchase option, or the landowner's desire for something other than a 30-year annuity payment lease, they didn't have the capital. Well, they could potentially raise the capital for a \$400,000 land purchase when you start talking about millions of dollars. It just became much more challenging. Launched the business three and a half years ago.

Bill Derasmo:

Excellent. Well, I appreciate walking through that, because I was wondering what exactly is a renewable energy real estate investment company. I think I have a better idea, but why don't you just elaborate on that for the uninitiated, if you're not a real estate investment person, or a real estate lawyer, what's the business thesis for SolaREIT?

Laura Pagliarulo:

Yeah, it's a great question. Our whole team, and especially the executive team, I think collectively, we just tallied it up as over 200 years in the renewable energy industry in terms of experience. We've been project developers, project financiers, negotiating PPAs, MIPAs, so forth. What we do now is really as solar and battery storage is growing, I'd say, eight times out of 10, the real estate underlying the solar, or the battery storage project is separate from the project itself.

We provide the financing for the underlying real estate to the project. There are a couple key reasons for that. Land is not ITC eligible, so it's not included in the basis. Oftentimes, so that's one reason. Our cost of capital is specifically designed for the real estate underneath the projects. Second reason is when developers don't have another option for the real estate, they end up using frequently development capital to purchase the land, or to prepay the lease, if you will, which is very inefficient. Development capital, as you know, is tends to be more expensive, even for the well-established shops. Our cost of capital is just tied to real estate, which is an entirely different beast. That's really what we do day in and day out. We work with developers, solar and battery storage developers across the country to help solve their real estate problems.

Bill Derasmo:

Very interesting. Obviously, with solar, it takes a lot of acreage. If you want to build at scale, it takes a lot of land. I know just dealing with some clients, what some of the challenges are with that. It sounds like, you guys have found a way to offer developers a solution that would give them a leg up in terms of their financing, because as you say, development capital is expensive. That's on the solar piece, it takes a lot of land. Let's talk for a minute about storage, since this is the Battery & Storage Podcast. I'm sure as the storage sector has exploded in growth, it caught your guys' attention. Why don't you talk a little bit about SolaREIT and how you're positioning yourself for the storage sector?

Laura Pagliarulo:

Yeah, it's a great question. Maybe just a little bit of background. Our first fund that we raised three and a half years ago was 150 million dollars in total. That 50 million from equity, a 100-million-dollar securitization from TIA [inaudible 0:05:55], that fund was full at the end of December. We were only permitted to do solar as part of that fund. The second round, this new asset code that we stood up with AB CarVal is 100 million dollars, initially up to 250 million dollars potential, which we of course will lever with debt.

This particular facility allows us to do standalone battery storage. Now, we always did solar plus storage with the first fund, but with the new asset code, we're permitted to do standalone battery storage. Some key differences, of course, is that while many solar projects can be in rural areas with lower real estate prices, what we see more commonly with standalone battery storage is a location in urban areas. Expensive urban areas with expensive tickets for land. Oftentimes, if you're developing a project in Manhattan, or one of the boroughs, or LA or Houston, Texas, there are a lot of other options for the landowner in terms of selling their property.

Typically, the purchase price tends to be more expensive. We started partnering with some of the well-experienced battery storage developers across the country to help solve their land problems, if that makes sense. I think it's important to note that like I said before, while someone could pass the bucket and raise money for a \$500,000 purchase of land in Minnesota, it's much more difficult when you have a 14-million-dollar quarter acre of land in Manhattan, or something like that.

Bill Derasmo:

No, that's a great point and an obvious difference in terms of the characteristics if you're doing just a solar development, versus storage. The footprint for the storage facility, it can be very small, but as you say, then the challenge is if the storage is going to be located in an attractive spot from say, the energy market perspective, say, behind a constraint, well, you don't have a lot of constraints out in the great plains, or wherever you're going to build a 500-megawatt solar facility.

You would have typically a constrained area where you might want to put a storage installation of best, battery energy storage system, for instance. I could see that the characteristics of the challenge are going to be fundamentally different. That's interesting that you guys stood up the second fund that allows you to do standalone battery storage. Talk about the REIT structure, because again, I think for the uninitiated in the energy space, they might be less familiar with that term and real estate investment trust, but maybe put some meat on those bones.

Laura Pagliarulo:

Yeah. I mean, I think just in general, a real estate investment trust, the reason why we initially launched our first capital pool with that structure is because it had some advantages for our investors. All projects we do right now are what we call readable. That means, we're really focusing on the real estate underneath the project. Those real estate transactions really come in one of three flavors. As we're talking about battery storage, I'll just focus in on these particular examples. We can either buy the land under a battery storage project that is in construction, or operational. That's the fee simple transfer.

Second thing we do is, for example, let's say the developer wants to own the land. In that scenario, we can purchase an easement and take assignment of the lease and essentially, advance the capital, put an easement over the project area, collect rent payments over time, but the developer, or the landowner still owns the property. After the easement expires, they have fee simple ownership as they always have.

Then the third option, which is priced similarly to an easement, is we just undertake it as a loan, similar to a mortgage in some ways, but quite different as well. That product is really geared towards land owners and developers who want to own the fee simple interest, but are very tax sensitive. Don't want to incur capital gains taxes and so forth. The REIT structure doesn't really come into play when we're talking with developers. It's just more that we're very focused. I say this, because it's critical. We're the only provider in the market that is pure play. All we do all day long is work with developers and focus on the real estate solutions, which the only reason why we've had success is because we are always accretive to their project returns.

Bill Derasmo:

That's an important point to make. You were talking about, I think, your cost of capital, and how that gives an advantage to everything. That's a critical point. If you're a developer and you're listening to this, and then I think, then you could start the conversation maybe with that point. Again, in terms of the real estate needs and that if you have a hybrid project, talk to me about those. Obviously, you need a fair amount of land, say, for the solar piece. Then for the storage piece, it's a smaller footprint. Are there unique challenges associated with hybrid projects?

Laura Pagliarulo:

No. I think the hybrid projects are pretty down the runway, like any solar deal. I think that one point to note and going back on your previous statement, cost of capital is obviously very important. In building this organization, there was just four of us for the longest time, and now there's 25 of us. We've really made it an intentional point to hire people from the industry. The reason I say that is because we are only focused on solar and battery storage developers, it's really important that we understand their pain points.

When someone comes to us and we will do a number of deals in New York City, we'll do a number of deals in Houston, Texas, and then a number in California. Those are the ones that are near-term in our plate. Because we've been in their shoes before, we're just taking advantage of almost confirmatory diligence. When we're talking about cost of capital, that's one thing, but then there's all these other costs. Very minimal legal costs, because we're just basically leveraging the diligence that's already been done on the project.

By the time we come in at NTP, or FNTP, the project's been diligence by tax equity sponsor, equity debt, we don't need to duplicate any of those efforts. Likewise, I think it's 75% of our business, they're repeat partners. You get one in, it's rinse and repeat. With these battery storage shops, you get one under our belt and then it's – I think, it's most of them are using the capital right now as dev capital.

The solar plus storage is just very similar to solar in this way. The standalone battery storage in urban areas, that has been quite a different approach for us, which is really exciting, because I get more excited at deploying larger chunks of capital than \$400,000 in St. Cloud, Minnesota.

Bill Derasmo:

Yeah. Well, as a lawyer, by the way, my ears perked up on your previous point about diligence and the projects have been diligence three times over. You mentioned tax equity council and debt council and they can be very, and should be very exacting in their diligence. Been on both sides of that. You can really drill into various issues from the lawyer's perspective.

What you're saying is you take advantage of the fact that you tend to hire people who have been in the trenches with these deals, understand just from years of experience, it sounds like, what the sensitivities are with a particular deal, what you can breeze over quickly and say, "Yup. That doesn't look like it's a problem at all," so you can be more efficient in getting through a deal.

Laura Pagliarulo:

Yeah. I mean, I think the truth is, and this has been a shift for many of us is we're just focused on the real estate. We have no claim to the asset. We really need five, I mean, to your point, having been an attorney on the debt and the tax equity, those are long, painful processes, often. One of our main promises is essentially, we're very easy to work with. You don't need a person.

We're basically taking the diligence that's been done, and most of the time that comes to the form of a developer just opening up a data room and we're looking for five things, right? We want to know the discretionary permits are at hand. We want to know that there's interconnection, an interconnection agreement, or deposit made. Not concerned when it will be COD per se. We want to see a survey in title. We want to see a phase one and that's it. Those are really the points that we are looking for. We don't get into the business of we want to see the PPA, or the O&M agreement, or the EPC. That's not something that we are concerned with. As a result, the business is made to scale.

Bill Derasmo:

That all makes sense when you walk through it. It all makes logical sense of what you would be concerned about, what you wouldn't be concerned about. For someone like me sitting in Washington, there's a lot of FERC diligence items, but it sounds like, those really aren't in your sweet spot of what you're looking for, for the most part, other than maybe some of the interconnection issues you said. Yeah, I mean, things like, the fact whether it's going to be EWG, or all those things. You're at the development stage. Issues like, do they have market-based rate authority don't really come up yet.

Laura Pagliarulo:

Yeah. I mean, I think most of our projects are not connected at the ISO. Most of them are connected at the local utility. We do want to know who the offtake is. We don't need to see the PPA. We're not concerned with the rates, or anything that. With battery energy storage with the standalone systems, we certainly want to talk about merchant projects. Obviously, our business. The reason why our cost of capital is attractive is because we're at the top of the waterfall. People pay their leases and having been at SunEdison when they went bankrupt, no matter what, people pay their lease payments. But we do want to have an understanding of where the revenue will come from, especially in the merchant world.

Bill Derasmo:

You use the term waterfall, which is a corporate term. I've become familiar with the meaning of that term through work with certain clients and not having had a corporate background, but it's just interesting that when you use the word waterfall, that jumped out at me.

Laura Pagliarulo:

That's actually interesting. I need to stop using that word. Thank you. No, no.

Bill Derasmo:

No, no, no. No, I get it now. In terms of, again, it's interesting because we had a lot of different types of guests on the program. I have a former partner who used to talk about, well, which end of the elephant are we talking about? We really hadn't focused on the real estate piece, until we had you on today. I just think it's an interesting point to emphasize to the audience, because it's something that we take for granted. It's like, "Oh, well. We've got this great technology. We can deploy it at scale. We can go out and build these projects."

Then you do get into the real-world challenge of actually finding a parcel of land that's available for the – in the first instance, it's like, "Okay, this person willing to sell. I can get this piece of land. It's big enough that I can build my project on it. It makes sense where it's located. I can get to a point of interconnection. I could sell it onto the grid." There's a lot of things that have to fall into place from a developer's point of view. I just think the real estate piece is something that a lot of times we breeze over and we take for granted. I know, I have when we've had these conversations on different points.

I just think it was really interesting to have this conversation today to focus on that piece. If there's anything you want to add to what I just walked through, like what are some of the things that you've run into as either, from whichever side on just the misadventures of trying to line up a parcel of land and actually build the project?

Laura Pagliarulo:

No, I think that's great. I think you make a good point. Obviously, the shops we're working with right now tend to have been the early movers in the standalone veteran energy storage space. What I'm certainly seeing is those projects, because it's far more complex to site a battery storage project in an ideal location than it is for a solar project. The most valuable projects are very site specific in many ways.

What we see is as more battery storage projects come online, the less valuable they're going to be. Even though the projects are particularly, could be less valuable, fast forward five years, because there will be more systems on the grid. The land for those, they're going to increase. The prices are going to increase. Just like we saw with solar, the early movers to the market could get a lease at a very attractive rate. I sit in Massachusetts, our company's based in DC.

As time went on and they got word about their projects coming online and things like that, not only are you going to have fewer sites available, but land owners are going to become more sophisticated in terms of what they think they can get in terms of leases, or sale prices. I think

the real estate component, especially for battery storage is critical, because they're big-ticket items. Some other challenges, I think, we're seeing, I think one of the advantages of this business and where I sit is we talk to developers across the board. We're not competing with anyone. We have many conversations throughout the day, myself, the BD team, my CFO. Some of the things we're hearing, as far as pain points go, is difficulty securing financing for some of these projects, because of what everyone's facing.

There's interconnection risk. With some of these assets, if your interconnection's delayed and you lose a summer, that has massive impacts to your returns. Other things we're seeing is some hesitancy, or reluctance to invest in projects that have more of a merchant component and not contracted revenue. That's something we're seeing. I think across the board, how I look at the storage developers we're partnering in with is that they have a number of issues they have to solve on a daily basis. The real estate component shouldn't be one of them. It should be very simple, very smooth. That's how we operate and obviously, creative. Lifetime in our business.

Bill Derasmo:

There's some really interesting points in what you walked through there. I think for the broader audience, you're talking about, again, I don't know if the broader audience, or I really thought about the real estate piece for standalone storage. As you say, if it's going to be valuable, it's going to tend to be in a very specific location and those specific locations, if they're associated with a constraint, or behind a constraint, those tend to be more expensive areas in society in general, right? Like you say, it's not a solar facility out in the Great Plains. That's an interesting piece.

Then the piece about the delays associated with interconnection. Now you're talking my language, right, as a regulatory attorney for my day job. I mean, and we've heard that in various contexts, or various iterations that those delays on the queue and those delays in getting the interconnection arrangements finalized and agreement signed and everything else are a killer. We've talked a lot about permitting reform and all that's great. But my point has consistently been, yes, permitting reform, if you can do it. But the bigger issue is fix the interconnection queue.

I don't think the people on the hill understand that. They just think permitting reform, permitting reform. Okay, great. You're not drilling into what the real issue is. The real issue is the interconnection queue. I know FERC issued order 2023, which is supposed to address a lot of this. I think over time, hopefully will, but it's a long process to get that implemented. Believe me, we're working with clients on trying to do it. There's so many things that need to be addressed in the compliance plans. We'll see how that plays out.

It's really interesting to hear someone who's dealing with, as my former partner said, the end of the elephant that you look at on the real estate side, that those interconnection delays are really affecting project viability.

Laura Pagliarulo:

No, they are. It's another aspect of risk that I know many developers are confronted with. In addition to solar developers, I mean, it's across the board. I think, the risk of timing is really important for the battery storage developers, because you're not getting a 20-year PPA,

necessarily. You lose a summer when, especially in the early years, that has massive impacts to returns. Not to say the same delays aren't impacting the solar business as well, but it's just less dramatic.

In addition to the delays, also increasing interconnection costs. I mean, that's something that we're seeing across the board as well, that developers are sensitive to. I think the one thing about our business that I've always admired is that in this industry, everyone's very adaptable. You've been in this industry for a long time as well, but at least with solar and storage developers, I feel like, it's a very – it's like, tell us the rules, we'll figure them out. But just tell us the rules. That's looking back at the tariff issue and just so many other obstacles, but they're real problems for sure.

Bill Derasmo:

Well, that gets into, yeah, another concept that would resonate with me and for many other is regulatory certainty. As we now change the interconnection rules – let's not change them again right away. There is going to be a degree of uncertainty, because you've got the interconnection rules, the implementation, and then you've got FERC positioning itself to issue a final rule on its transmission rulemaking, which I understand is not exactly the same, but it could have an impact on how these projects get developed and cited. You've got that piece hanging out there as well. A lot of rumors about when that rule will come out as well.

Laura Pagliarulo:

Yeah. I think the interesting thing, and it's when we built this business, we spent so much time thinking about what we needed to be concerned about and what we didn't. One thing that we're not concerned about is a lot of times when these battery storage developers are getting site control, they're competing against commercial developers, residential developers. For the time being, the revenues for the BSS projects are strong enough to compete with those entities.

We come in at FNTF, as I mentioned. But we are more or less agnostic as to when actual interconnection occurs. The reason for that is, as long as the project continues to pay lease revenues, we're not taking risk on when COD happens. Thankfully, that's the case, because we acknowledge, like one thing that's consistent in this industry is the timing always changes. People who come into this industry from the outside, I think it really frustrates them, but that's just the nature of these projects and how things work.

You're right. I mean, the rules, the permitting rules, you're talking about the interconnection, transmission, change is evident, but at least for the real estate component of our business, we're less concerned about that. Certainly, feel the pain of the developers, but it's not something that impacts how we model pricing and so forth.

Bill Derasmo:

Interesting. Yeah. No, it makes sense for what part of the business you're in. I mean, I don't know, there's just a lot, probably more that we could get into. I mean, the supply chain difficulties for developers have certainly impacted the timing and number of projects that have advanced. But again, you guys might be somewhat insulated from that.

Laura Pagliarulo:

I think what's interesting is we are, of course, in some ways. What we've seen is especially with interest rates going up and supply chain issues continuing to plague a lot of the industry and interconnection costs and all the things we've discussed, is that a lot of the developers we're working with are taking the financing from our business and using that as development capital.

I say that, because our cost sale will give you a perfect example. If, let's say, a battery storage developer has a purchase option for a million dollars and we look at the expected revenues from that project and we know that, hey, we could actually pay 2 million dollars for that purchase option and still be comfortably within, let's call it 10% of the projected revenue. One million of that goes to satisfy the landowner for the purchase option and another million of that goes to the developer to use as dev capital. We're seeing that as an alternative source of development capital, because we're still the single digits and dev capital tends to be much more expensive. Anyways, that's a very simple example that we're seeing more widespread.

Bill Derasmo:

Really interesting. Very, very interesting. Well, why don't we wrap up? It's been great to have you on the program. Again, it's an aspect of storage development, solar development, project development that we really tend to gloss over, at least I do, the real estate piece, the underlying land, all the challenges associated with that. It's interesting to hear what you guys are bringing to the table. We very much appreciate you being on the program. I learned a lot today. I'll give you the last word, if there's anything else you want to put out there and just let the audience know, developers, how they can work with you and SolaREIT.

Laura Pagliarulo:

Well, I want to say before that, Bill, I actually learned a lot in talking to you today, and you're deeply entrenched in the permitting side of things and FERC and that's always fascinating to me and what a cool job to be able to talk to multiple people in different parts of the industry. I think that's probably the most, hopefully, one of the more fun things that you do to balance out your dialogue with FERC.

As far as last word goes, I would say that our team is simple to work with. It's pretty binary, if you have a purchase option, or some sort of real estate problem, we can add value without a burn on time. Other than that, we're definitely not a pushy bunch of people. We're more attraction, rather than promotions.

Bill Derasmo:

I think a lot of people would like to hear attraction versus promotion. That's good to hear. In terms of fun, I'm not sure I would say it's fun, but I'd probably go trail running, or I don't know.

Laura Pagliarulo:

Okay, there. Fun within the professional context.

Bill Derasmo:

Right. Yeah. No, we're just joking. But no, it's great to have you on today and folks, go learn more about SolaREIT. Until next time, thanks everyone.

Laura Pagliarulo:

All right. Thanks, Bill.

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