



Qcells Webinar: A New Era of Power

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Nick Centera: Okay, let's we're gonna kick it off here. So I would like to welcome everyone to Today's Webinar here, hosted by Qcells.

Nick Centera: Today's Webinar is part of a new Webinar series that we're launching and it's called the New Era of Power.

Nick Centera: And today we're going to talk about energy procurement, and particularly what Microsoft is doing and what it's accomplished. My name is Nixon Terra. I'm. The senior marketing manager here at Qcells.

Nick Centera: Our Webinar is hosted by Vitaly who is the Chief Development Officer. Qcells, U.S.A. And Vitaly has been powering energy transition through renewable development for over 20 years.

Nick Centera: We're really excited to have Adriene here, and before I have Vitaly take over there's a couple of quick housekeeping items before we get going. Number one. The session is recorded, and the copy was made available to you afterwards, so I'm sure that question will come up, but you'll get a copy afterwards.

Vitaly Lee: And really it's a pleasure to have you and you and I obviously the way back. We've known each other for a very long time. And why, Don't, I give you a few minutes to introduce yourself and what you've been up to what you're working on, and tell us more about the exciting things at Microsoft.

Adrian Anderson: I'm gonna start out with a little picture because we have known each other for a long time. This is last last year, a year before my Vitaly and I were in Korea when we were putting together our queue sales deal and doing some other stuff, and we had an afternoon where we could go sort of, check out the old city and do some stuff, and apparently there were a number of teenage groups going on field trips, and that's me. They're in the front with the hat on. Ironically, they all wanted to take pictures, because for some reason they thought it looked like Justin Bieber or some part of boy band. I'm like I'm way older. Don't look like any of those folks are much better looking. But so that's just sort of a little bit of levity, for some reason that I absolutely felt left out. So, I will say. But they asked me to take a picture of you. So, there were a number of groups. You it was like, yeah.



Adrian Anderson: High School group. So, it was hilarious. Anderson, I'm the general manager of carbon-free and renewable energy here at Microsoft the 30 goal of being carbon neutral across all of our scope, 2 emissions and then across scope 3 as well. So, my team is responsible for helping to develop our carbon-free strategy when it comes to energy projects. So you know, looking at advanced geothermal batteries, SMR's technologies. You kind of name it. We're probably looking at it or trying to figure out ways to bring it into our portfolio for better or worse. This is my fourth tech company. I have been at Microsoft the longest. I will say I'm just started beating out my time at apple. But I've had the pleasure and pain of working at Apple and Google and Amazon. And now here at Microsoft, and prior to that, I was an originator and development developer for a German EPC . Firm for a number of years. So I've gotten to see it all from both the buy side and the cell side, and it's been a really awesome journey. I don't think I've ever seen markets and the electricity space, and such a sort of set of conundrums as they are right now. It is permitting interconnection. you know. You can Ukraine crisis and things like that. So it's a really exciting time to be in this space, but it's also a super frustrating and challenging time. So, thanks for having me.

Vitaly Lee: I would agree. I guess, if you I know quite a few folks who probably dialed into this. They obviously read the announcements about the deal that Microsoft and to sales recently announced, do you want to say a few words about how that came about, and what really does for your company?

Adrian Anderson: Yeah, I mean this this ironically, this kind of came about it's all I'll sort of go back. What? 18 months Gosh! It's been 18 months probably one More than that, we were just kind of randomly having a conversation and thinking about like, how could we start addressing some of the supply chain issues that we're seeing for our sellers and things like that, you know. Obviously one of the big hot topics and PPA's right now is pricing right? How are you going to do a fixed price with interest rates increasing, and at this time wasn't interest rates. It was supply chain and other pieces delay timing things like that. So we I guess I was in a meeting with our senior Vice President for our infrastructure team, and I just was like, Well, why Don't, we just go out and start procuring or working with our customers and sellers and try to help, you know, use our balance sheet and use our credit and use our basically our name to go in and work with companies and create collaborative efforts.



Adrian Anderson: We really wanted to drive additional manufacturing capabilities here in the Us. Domestically, but also abroad and other markets where we operate to try to go beyond just being a corporate, procuring energy and pushing the energy economy in ways that we hope will help benefit everyone else. So, raise this idea in a meeting. I didn't think it was going to go anywhere, and they were like, and get this figured out so the collaboration has been great. It is a collaboration. It's a partnership between us and Qcells. And obviously Hanwha as the parent company.

Adrian Anderson: What we're, what we're really trying to do is create more certainty in our pipeline of projects as well as drive more manufacturing capabilities here in the Us. So, providing that security to say like. Look, I've got 5 gigawatts of solar in my pipeline. I've contracted for it. Am I building it? No, I am not. But I am happy to make introductions and tailor my PPA to align because a lot of times, you know TSA's, MSA's. All of your supply agreements that you do as an ABC. Contractor, never freaking. Align with PPA terms, right? Your provisioning is different. Your timing is different.

Adrian Anderson: So we have the ability to work with preferred sellers like customers that come to us, and that we really like. And we've done a lot of deals with it. We have the ability to tweak our PPA's we need that allowed us. Then go out and work with Qcells to say Yes, we want you all. Our group. So, we went and worked with Qcells to say, Look, we really want to push more production, how would it be helpful? And so we came up with our agreement, and we've been funneling a number of our suppliers into discussions with Qcells, and then those discussions have manifested into supply arrangements, EPC. Arrangements, and things like that. And so we hope to continue doing that and to spread that more globally. But this was our sort of test case to see how this would work. And we're looking at other equipment Quite frankly.

Vitaly Lee: Yeah, no, that's great. Obviously this was a big undertaking, obviously from your team as well as from the Qcells team, and very pleased that we were able to come to terms, and obviously a lot more needs to be done.

Adrian Anderson: A lot more companies are interested to follow suit, and I guess, as always, Microsoft as a trailblazer, and I appreciate what you've done, I guess. Talk a little bit about your team. How big is it? Are You focused? I know you're not only focused on the Us. So where else are you focusing on? Yes, we're globally focused, and I looked this morning to make sure I got the right number recently. I have 23 people on my team right now.



Adrian Anderson: Excuse me, but we operate globally in every market where Microsoft operates. We are divided into kind of 5 functional areas. Now I have my originators who go out and do the transactions. So, power purchase agreements, IFA's tolling agreements. Whatever type of agreement we need to do to contract for an asset, they will go out and source deals, they will negotiate, though deals execute the deals. Those deals then go into our contract management system, and that gets transferred over to our asset managers. Now they're not like an asset manager like O. And M. And so forth. But they are here to manage all of the renewables, contracts, or contracts that do not include all of our load side contracts. The asset management team is, basically they work with our sellers to ensure that folks are hitting our delivery milestones, hitting timelines working through any of the you know, adverse circumstances that are coming up these days, whether it's a permanent issue interconnection issue. It's a tariff or delay issue, so that team focuses on that. I then have a risk and analytics team, which does our spend at risk analysis. We build our own long term for forecasts, we ingest forwards and so forth into what we what our sequent model, which gives us our long and short positions, and it gives us sort of a cash flow exposed. We typically our budget has increased on a year or a year basis, and drastically so when for risk analysis, we look at both of our data center load position, but also our renewables, positions in each market, and you know our annual operation budget, for electricity is billions of dollars at this point. All of that has come back out of our budget because things swung in our favor again.

Adrian Anderson: But there's a lot of emphasis on making sure that we're being really prudent around cash flows. I then have a team. Several people focused on environmental justice and bringing more transparency and so forth into renewables, and then I have my supply chain team, which works with folks like Qcells and others. Try to bring more of these collaborations together.

Vitaly Lee: and that's helpful, I guess. This being your fourth big tech company, and you've done procurement, I guess, for all of them for quite, quite some time. Talk a little bit about it. I guess the evolution, maybe the challenges you are facing with update back in to where you are now. I guess the challenges, then the challenges. Now.

Adrian Anderson: yeah, I mean I. The biggest thing is like the challenges then are just sort of commonplace for me now, like we do these things, and it's not a challenge right like. So when I first started at Apple it was we were going out to get market-based rate authority right so that we could be like Rio Tinto or any of these other companies who were manufacturing industrial companies, but they had the ability to trade on wholesale power markets.



Adrian Anderson: That was a big lift, right? We had to convince folks that our energy spends and our exposure and our need to do it. Sustainability was so important that we would go out and become a FERC, regulated entity. Right that whole process at apple. Those are the challenges, then it was largely education and educating our executive teams on. This is what projects look like. This is how I fix the flow swap works. This is what it's gonna cost us. It's. It's not like printing cash, right? We buy an intangible commodity. and we're trying to green the economy. So, there's going to be a cost.

Adrian Anderson: So those were the first pieces of sort of complexity. There was no real thought of how we're going to build a team, and how we can scale to be more like an energy company it was like, do we have a couple of people who are doing procurement, and can they continue to do 2 or 3 deals a year or 4 deals in a couple of different markets, not multiple markets that has transitioned over time. Right? It's become more complex. We are less running this as a side hustle, and now it is the hustle for us right?

Adrian Anderson: Right? So now we are treating this like we're an energy company. And so the challenges now are less about getting those sort of getting market base rate authority or building your program. It's more about how do we hit these lofty goals that we have like? I we're doing 65 power purchase agreements a year plus. So that's like over a power purchase agreement a week, right? And these are really complex deals, and we're not just doing unit contingent fix the flow swaps. We are doing a lot more complex deals. We're integrating fuel cells and batteries, and all these other items that create a lot of accounting issues for us. We're spending a lot of time working through the accounting issues and building the actual tools that we need and trying to do that at a paste. That means we can hit our goals because our load on a on a cloud basis just continues to grow exponentially right.

Vitaly Lee: That's what I heard, I guess, from your company as well as other companies, that by the time you're done negotiating a PP. As you're already behind. What? Where your next load is taking you.

Adrian Anderson: Yup: yeah, that's what keeps you up at night like my team can't go any faster like we cannot do any more deals and maintain the level of quality I want us to maintain. But we're not we. We could do double the deals we're doing now, and still we kind of like we probably should do more. Give me a little bit of sausage making.

Vitaly Lee: I guess, as developers trying to negotiate those multiple PPA's with you. What are the fundamentals, I guess, of a successful and attractive project that Microsoft and others corporate off takers are looking for.



Adrian Anderson: You know. I think it's less about what's a successful and attractive project, because, look, an attractive project has interconnection, has permitting, doesn't have a lot of public scrutiny and push back. You know we love looking at wind and solar and batteries, and all these combinations of things that stuff's all awesome. So I think we all know what a well-developed project looks like.

Adrian Anderson: Our biggest issue is. The markets are tumultuous. Right? Now right. It's easy to do deals when the market's pretty straightforward. Yes, the markets a couple of years ago. We're very busy. Our friendly and prices were really low, and now things have sort of transition. But what I found on this side of the table is transparency is the most critical piece like we want to know when there are issues with projects like we're going to contract a project or we're gonna work through. Do you come and tell me? Oh, yeah, interconnections are all solid. We're good to go, and then you come back 3 months later. You're like actually interconnections 60 million. When we thought it was going to be 12. And now the prices we can't build this project.

Adrian Anderson: We need insight into the issues, and we need a counterpart that's willing to work through it, because my team is like, Look, we're, we're pretty fanatical about certain provisions in our contract. Right we have to be, because our portfolio is 20 gigawatts. I have to have cost constraints in there, but we will work through all these other things so like pricing or indexation delays, and timing like that will work through. So really, what's important to us is a smart counterparty who is very transparent about what's going on, and is not afraid to give us the bad news. My issue is, most people don't want to give me bad news. and it's not that it's way worse to delay giving that news to us than it is to just say, hey? We found this out, ripped the bandit off, and let's figure out a solution.

Vitaly Lee: So what you're saying now comes to you early, I guess, with whatever potential you choose in the name of transparency, transparency, and try and figure out together.

Adrian Anderson: Yeah, exactly right, like when you know when it becomes like, when you've exhausted everything internally to sort of try to solve the problem. And you're like, okay. This is going to be. Require a much more robust fix coming to us at that point and saying like either, yeah, we don't need your help, but we want you to know this going on, or to how can we think creatively about, You know, a replacement project, or you know, Bridge Rex, or something else something that will help sort of bring the deal together, or if we can weigh in on you know, interconnection issues schedules or EPC services, or inverters things like that where we can sort of lean into our supply network and try to bring that it' be financing right like you're like we we're not finding the right tax equity or



the right equity partner. We know all those folks these days, so we're happy to sort of make introductions.

Vitaly Lee: Now that's good, that's good. So, what do you think? made and keeps me that, you know, allowing Microsoft to be the trailblazer in in procurement. Is it their purchasing power? Is it obviously the awesome people like you, and your team 23 of you.

Vitaly Lee: What is it?

Adrian Anderson: I don't know that we're a trailblazer but I do love that. We are trying to be as creative as possible and go beyond just traditional procurement activities. But what I think drives us is, and I know it's going to sound so cheesy. But Sachya, Amy, and Brad Smith, who are on the executive team, and my C. And I. Leader Noel Walsh. They are so interested and so committed to doing what they think is best for our customers, and it's funny, because not just like oh, did you buy D Are you using a surface notebook, or whatever they consider our customers. Everyone right, like we engage Microsoft engages with such a wide swath of folks globally, whether it's your Xbox or search engines or whatever. So they they're really into ensuring long-term longevity for Microsoft, but for our customers and building a much more robust ecosystem for everyone so that has driven us all that trickles down because they let me hire folks that are super sharp, maybe more senior in role, and they're letting me attack this like I'm an energy company not like I do this as my side hustle. We would not be pushing the bounds as far as we're pushing them.

Adrian Anderson: I think one of the other things is just a willingness to fail, and looking at failure as an opportunity to learn from it and move forward right and not you fail. This sucks. You know your plan. We definitely for every announcement we've made. We've tried probably 10 or 12 other things that just Haven't worked

Vitaly Lee: right. Then. Obviously, you don't announce those like you don't post pictures of yourself, and it's cigarette crying, I mean sometimes, maybe. No, I'm. I don't have any social media.

Adrian Anderson: I know, I know. Let's go back briefly to the offtake and the PPA's that you were describing. I guess. What is the flavor to your these days? Is it face priced? Is it floating, indexing? How are you? I guess. What are you comfortable doing with your I mean? I'm comfortable trying anything with the right sort of counterparty.

Adrian Anderson: What we are looking at is, I mean, look from my perspective, from finance. Perspective. Fixed price is the easiest for us to do because we go and get



approval. Most of our deals are We definitely prefer fixed price contracts. Understanding that these days there's a lot of risk premium baked into that fixed price. But if we can make the economics work. We would prefer to go that way. But we've looked at all sorts of different indexations. The problem with indexation is, what index are you using to sort of hide your pricing. What's the duration of the change in pricing? Are you looking at this quarterly, monthly, hourly like? How are you tying all these things together? And when do you lock that price like? When can it no longer be indexed? When does it? Just this is the cost, which is it?

Adrian Anderson: I mean that you come to this in yeah interest rates, and all these other things that just are kind of blowing us up so not to sidestep your question, but I would say it's a mix of everything, and we're having, because we operate in so many different markets, we have to look at a different flavor of procurement and sort of commercial structure in each of the markets.

Vitaly Lee: Yeah, especially with quite a few, I guess. Elements transformers, including have a very long call, right? Very long lead, I assume in your evaluations you value in a I guess, a assigned certain preferential attributes to projects that have secure entire GSU, and they know that they will come on online at the time they're telling you they will come home.

Adrian Anderson: Yep, absolutely right that that's when we have a counterpart that reaches out and says, hey, I've got a project here, x, y, and Z. And, hey? By the way. I have all the supply lined up, or I've engaged with 2 cells, and I've lined up supply already. That's really helpful. right like that shows that those folks are committed to getting this done, and it's not just a developer flip.

Vitaly Lee: Yeah, I and I think from that perspective we obviously we are uniquely positioned that we are one of the world's largest diversified, clean energy companies that you know. Obviously, PC. Full scale development modules. We now offer another service battery storage, energy, system, system, integration. So we are certainly all ready for that. Let's stay on the PPA subject. You've talked about customers. You've talked about developers. Tell me more about your appetite.

Vitaly Lee: I know you have a lot of experience dealing with the utilities, the incumbent utilities in regulated territories, sleeves, and all that fancy stuff. Talk to me about how comfortable you are.

Vitaly Lee: What are some of the defaults then, I guess. How do you overcome this?



Adrian Anderson: Yeah, I mean, Gosh and yeah, and I'm just trying to think back like the first sleeve deals that we did, or tariff deals within the energy, or like Mid-American, or that's been a while there. There are a lot more opportunities now than there were in like 2,014, I think I mean, look our favorite like. If we got everything we wanted just from a commercial standpoint would be like cool. We're gonna do a, you know, fixed price. You deliver to our load carbon, free electricity, and it just stays there and like resource online, they excuse me. They show us that it delivers to us, and they add, You know they charge us whatever an LGS for a large generator or a large load great tariff, and it's just all baked into what we pay at the retail meter. That's the best. I can't think of any that it'd be. Energy has something like that. But it takes a while to get in there, and you have to be of a certain size, and so forth. I think the biggest piece. And again, this goes back to less. What's in the contract, and more than 10 years ago utilities were like hell. No, we're not doing this with you like that's stupid. We're not going to waste our time. You're being ridiculous.

Adrian Anderson: Come back some other time. You have a rational ask. There were certain utilities who actually started to listen because data center load was so large that they were like cool. We'll. We'll take you a little bit more seriously with And so those conversations started, and they've really progressed really far. And but what I found in our discussions with utilities and things like that is a lot of times, customers or folks like in the tech side will approach them like they know what the hell is going on, and they don't. Listen to what the utility is saying. They don't like to hard that they have rate base. They have ratepayers, they have a POC. They are not willing to move as fast as we may like them to move. But there's a reason for that right. They have to check all these boxes. The utility space is not a fast moving space. It's getting off faster.

Adrian Anderson: But I think, acknowledging that we're not the sharpest dudes in the room, or do that, or ladies or men, or whatever that we need to work with them as partners, and if they are raising concerns whether or not we think they are legitimate on our side, they're legitimate to them. So you have to pay attention and try to sort of craft your agreements around them. We have had great success with our utility partners, because they've come to us and said, Wow, you're actually listening to us. We really are we? We're now willing to do x, Y. And Z. That we had said no to in the beginning, right? We're pushing, pushing utilities that I never thought would listen to us on doing more environmental justice work and things like that incorporating that into tariffs and building community based programs and projects that we are funding. That

Adrian Anderson: I, you know, 5 years ago, would have said that this is never going to happen right? So, I think I think tariffs are a really important tool, especially for folks that



don't have a 20, something person team, and you know, a balance sheet as large as ours. Right? So I think larger customers like ourselves need to be helping build those tariff programs out so that smaller customers can partake of the benefits. Those because really, they're not risky, right? They're just to call a market risk. You're not wearing operational risk. You're just paying a fee, and it's fixed. And you know your exposure is.

Vitaly Lee: I think it's a good thing. Thank you. I think that's a good segue, Adrian, because you know, I asked this question. Every conference I go to. I mean it's great that all your big tech companies are again trailblazers. You are making it happen. Additionally, it is important to have a lot of steel on the ground because of your procurement and commitments. So, thank you. How do you pull in the buyers? Obviously, you are making the biggest difference, the big companies. But how do we pull into this? Hold a lot more of the smaller off-takers who really have aspirations? But don't know how to get to that point.

Adrian Anderson: I don't have a good answer for you. I'll be very blunt, I mean. We've been trying to get smaller buyers in for a while. Right? I think it's a whole mix of the above. I think the Ira is going to help here in the Us. I think right now, because of where prices are for our purchase agreements. We're right. We're uncertainty and sort of getting creative is. I think it's harder for small buyers to get in the market right now, right because there's just a lot of additional risks. And quite frankly, I would tell some folks to wait, because if you don't have a team or a good advisor. You're going to get yourself into a world of hurt because you just the markets are so complex right now communities where we operate our data centers. We're building 501C3's and things like that that basically we will fund through. You know, some type of percentage off of power purchase agreements or things like that. The funds then go to building distributed energy projects for presidential, low-income communities. They will go into energy initiatives and things like that we're trying to expand that to larger sort of global scale like, how can we bring as much distributed in together to give us a larger volume and do tax equity, and Rex and all these kind of things to expand our footprint, for, like scope, 3 emissions and things like that, and on the other side we're lucky because we have so many customers right. I have so many different azure customers, so many different 365 customers.

Adrian Anderson: and I would say, probably on a weekly basis between 3 and 5 of them reach out to say, hey, would you be willing to talk about renewables? We want to understand how you're doing it? What you're thinking about, and so we will go and have educational conversations with them. We'll kind of lead them through our procurement



program. Give them some basics. and if we can we'll loop them into what the deals we're doing, or we'll try to do. Deals that will, you know, be in their backyard or beneficial to them. I think that Isn't going to solve the problem right, See? But I don't think it's really helpful. but I think it's just staying the course, in a matter of time it will eventually be sort of more commonplace for everyone to do it.

Vitaly Lee: A few years ago, you know. aggregate. If the PPA's were all the rate, you know. We've signed on my previous company a few of those. and I think there was a lot of talk of, you know you big tech companies being sort of the anchor tenant, and then you pull in. The smaller people of the smaller companies. Rather is that still happening? Is this still around? Segregations are happening, but as you in part of an aggregation, you can probably realize that they are pain in the neck here.

Adrian Anderson: But I mean I just you would be relatively straightforward. But then, you know, you're trying to backstop with our credit or for our position on PPA's, and then you get folks that come in and you're like Well, no, I want this and that you're like Well, you're taking a very small portion of this like we're negotiating to benefit us, and that will benefit you. So, it just takes. It probably takes 1, 4 X. The amount of time to get one of those done that it does a traditional deal. And honestly you're only bringing in 3 or 4 other counterparts, and it's probably to have done an aggregated deal before, and if they haven't it's a pretty small volume, it's just hard. We also procure on such a large scale right like I'm carrying 6 gigawatts a year, or my team, I should say my team is here.

Adrian Anderson: We don't go out and do a lot of small deals unless they're brought all together in a portfolio and aggregated right. So, it's harder to do. The aggregated deals with that, you know a consortium of customers. We have seen folks like 3 degrees, and Schneider and others continue to try to push those deals. I think level 10 is as well, but we just from where we need to be and decarbonizing, we don't see that as a hugely helpful tool for us, just because of the amount of time it takes.

Vitaly Lee: right.

Adrian Anderson: We are looking at them. We are working on a couple of them. But yeah, they're slow going.

Vitaly Lee: right. Let me pivot. There's a there's no lack of news in recent history. I think one of the I'm. Not gonna. I'm not gonna name. But you know, tax equity, direct tax equity invest investment from one of the corporate Offtakers. Not only a PP. But it's packaged for their tax. Equity, I guess, investment into the project. Is it something that we'll see more



of? I don't know if you want to comment about the Microsoft desire. But is this something new?

Adrian Anderson: We would definitely engage in tax equity. The tax credits will be really interesting. We don't think they're as simple as everyone's making them out to be from an accounting perspective and from a process perspective. So we've had a ton of folks something like oh, it's x y, and Z, and it's just easy, and like I don't think so. Sorry.

Adrian Anderson: I think that's all great, and I know there is a scarcity of tax equity right now. We we're just talking to some banks the other day about this and showed us a graphic where here's what we need for tax equity. And here's what there is, and we're like, oh, God! That's right! Now we definitely are engaged in tax equity, tax credit, all of those pieces. The issue for us is, we can't do tax equity and a PPA. Because that's capital lease.

Adrian Anderson: So we have to be pretty careful about bringing those 2 pieces together. But what we have found is that trying to aggregate and bring together distributed deals into a larger portfolio, where we will step in and provide the tax equity and say, yeah, we're willing to take some of that credit risk, and then we'll take off. Take the renewable energy attributes or something that we are seeing. A lot more of those types of deals come forward. But yeah, I mean tax. Equity is really only applicable in the in the Us. Market. We are looking at investment in other markets and things like that. But I would say for us, nothing's off the table right now. Our aspirations of locked and appetite is so big that we. if we think we can make the tool work, and it's prudent. Then we'll use it.

Vitaly Lee: Okay. let's switch out to technology. Are you technology agnostic, or you? Obviously looking always at optimizing your holdings and the portfolio and the needs of your, You know, specific data centers talk to me. I guess your appetite for procuring different technologies. Obviously, you do Pv. But also, storage. Is that on the horizon for you, Adrian? Anything else?

Adrian Anderson: In some ways. That's a ridiculous goal, because technology goes up. We're not generating a certain shoulder hours or midnight, or whatever, but it is driving us to come up with creative solutions.

Adrian Anderson: So we're we do have a global portfolio, right? So I do need to balance my generation. Mix and try to bring it as much a generation and a carbon-free generation in each hour as possible. There's also yeah shape differentials and degradation and things like that that you get from Wend, or solar and certain markets. So we do have to balance all of those pieces out. But yeah, we have some really cool fuel cells type stuff in our portfolio. We've got batteries, we're wind solar geothermal.



Adrian Anderson: We will make some announcements coming up with some really cool stuff we've just figured out, or we are working on. When I said I was sort of technology agnostic, the one thing I will say is like. I hear a lot about H₂, and how awesome will be an electrolyzer. H₂ is a low-density fuel. No sense in electrolyzer. It makes tons of sense for heating. Cooling makes tons of sense for transportation, and we're figured out. But from a data center perspective and from a using it as backup generation or wholesale generation makes no sense to us.

Adrian Anderson: What would it take for energy storage, I guess, to displace generators backup generators that a lot of data centers have to rely on. Is it a cost curve? Is it? Is it what iteration costs curve and duration? We need to be able to stand up and generate for 48 h, and not have an issue right, because you just continually dump Diesel into a gen set or low carbon diesel or green Diesel into a gen set. You just run it right. The footprint for batteries is also significantly larger, so our technologies, like Main Springs linear engine that's a fuel cell that we run on ammonia, hydrogen LNG and all these other things, and they're stackable and a whole bunch of things. So there's a lot of technology out there for the backup that we're looking at. Batteries definitely play a role. They're so I don't think they're going to displace. Jen sets all together, but they are displacing certain portions of Gensets or some of the other sort of quick start items that we need.

Adrian Anderson: But yeah, I mean we're looking a lot of that. So the issue with batteries right now is again. We're trying to get as much forced labor out of our supply chain as possible, and a lot of the minerals and mining and rights to the minerals used in batteries and the elements using batteries are from conflict areas, or they're really it's not a very clean supply chain. So we're trying to work through that as well.

Vitaly Lee: Yeah, I think around the same time as we announced that the deal with you to sales announced that 2.5 billion dollars investment in the which is, I think, yeah, I know it is the largest investment in solar you history in the US. And so we are really looking at all the supply chain, of course, to bring it.

Adrian Anderson: You all like us are trying to push wherever you can to improve them and, you know, make really significant strides. We really appreciate that.

Vitaly Lee: Okay, let's do this. I do have a couple of more questions that I kind of wanted to explore with you. But I kind of want to start wrapping up so that we can answer some of the Q&A. So, I don't know because of collecting those. So I guess you know. Okay. So you, Adrian, and your team can continue procuring, you know, 60. Go out and doubling Triple, and you know to meet the demand of Microsoft. Is there anything? What would you



dream of that? Something takes place, and is a complete game changer? And rather than this usual page of you procuring and projects being delivered. Is there something that you know?

Adrian Anderson: Yeah, I mean to be fusion actually works. I don't know. If fusion actually got off the ground. as you know, it's. There's no fuel issues, there's no sort of electricity issue, there's no long-term issues. There. So that would be really cool.

Adrian Anderson: I will focus on tech a little bit. I would like people to stop adopting AI so quickly, not because I don't think it's awesome, it killing me from a look growth. It's the coolest thing, and it's scary and awesome. But like joking aside, I would love ChatGPT and AI to step into our world and just make the procurement process like cool to Co: 2 computers talk to each other. Do the deals and boom. We're done right. I mean, that's not great. I joke that I want to. My real goal is to work out my team and myself out of a job because we're carbon-free, and so forth. And now I get a little concerned. I'm like Shit ChatGPT could do that potentially great ways. But no, joking aside, I think the goal, the goals that we have to be carbon neutral and decarbonize the grid. It's going to take time right, and I don't know if we have that time or not.

Adrian Anderson: My hope and my sort of like, if I could have my wish, would be that we just keep having companies like ourselves and other governments and entities, continuing to do this right, and we make it just sort of mainstream, and it's no longer a sustainability. Item, it's just how you procure energy, how you go out and do things

Vitaly Lee: and it and it makes economic sense, right? So the way when I guess in a way. Yeah, my last question was going to be: is there a call to action from you, Adrian to other corporates, other buyers who have transacted, not transacted, and I guess a call to action to developers like you.

Adrian Anderson: I mean, I think developers are doing great all in all, Mostly there are some that I'm just like, oh, why can't you guys get your head out of here? But I would say, my call to action is, I want to be one upped. someone else come and do a better cooler deal than our queue. So, steel we're gonna make some more here in April. I want to be one up by the other players like Amazon and Google and others like Cool, you announced like you're doing a bunch of gigawatts in certain markets. So, that's great, and I appreciate it. But, like, show me that you can think more creatively that you can do the because we all know how to do that now, and that you can create initiatives that go beyond that. And I would. That would be my call to companies like ourselves, but also to developers like, what do you got? Show me? Let's get creative. The PPA was a tool that was created, and it



wasn't supposed to last all that long right, as I recall like when we're having conversations early on with folks who are doing this like they thought the PPA was great. It was going to be a tool, and then eventually this would be commoditized, and it wouldn't be needed anymore. We haven't gotten there yet, so I would like to continue pushing to get somewhere like that.

Vitaly Lee: Oh, this has been great, I guess you know your own fireside chat. There are a couple of questions. I'm sure it has more. But, what are your thoughts for a long duration out, or your storage?

Adrian Anderson: I love it. I really think we need it, especially us as data center companies. We need long duration stores, especially if we wanted to plant Diesel J sets and so forth. We are definitely looking at a number of different long duration storage technologies. I think we're relatively close on our first one or 2 transactions in that space we see it as a super important piece of the puzzle.

Vitaly Lee: Okay, is this something that you would be willing to partner with? I guess technology providers, if you know they don't wanna to test pilot. Or I mean, if it's the right technology, the right provider and they have a good thesis and sort of working Beta:

Adrian Anderson: yeah, absolutely. We have. Our team is our data center advanced development team. They do all of our sorts of research, and so forth for liquid cooling and batteries, and all those different technologies.

Adrian Anderson: So I mean, if it gets through their screening, and there's an opportunity for us, we would absolutely partner. We are doing that.

Vitaly Lee: Okay. Okay. This next question, I think, is almost in response to your one up challenge. How do you win the same projects as Amazon? How do you win projects? I guess how I assume. How do you? How do we? Yeah, how do you come my head ahead of Google, Amazon and others.

Adrian Anderson: So as Microsoft, and really getting the projects because there is limited supplies of projects, I think there's always competition. You always win or lose some.

Adrian Anderson: I'm pretty particular on the quality of the projects. I work on the terms and conditions in my contracts and doing. Repeat business with folks that show up continually and deliver. So I think what we've done at Microsoft is, we've a lot of relationships. So we have Qcells or Brookfield, or I mean a whole host of companies for a while, who continually show up and deliver me, projects right and hey? And they come back, and we've worked with them on our side. We're willing to work through deal issues



or problems, and we're not, like cool terminate. Collect your security, I mean, I will terminate and collect your security if you piss me off, or you violate the contract.

Adrian Anderson: But I think I don't necessarily know that we're winning. Just it's being a rational counterpart, and we try to consistently do that. So you know, I don't engage in those negotiations for Google or Amazon, or I don't know what they're doing. But we've done pretty well, and we continue to get good supply so can't complain. Yeah. And now that you need the any prop up from me. But I can test. Yeah, you're quite reasonable. It's fun to do deals right, and you're not gonna win If I get the best position ever, and you get a shit position right like, and vice versa. It's got to be balanced. We both have to be smiling and crying at the same time. Right there.

Vitaly Lee: That's right. I think there were only a couple of questions, Nick, if you want to come back, I don't know if there are other questions that came through directly to you.

Nick Centera: Sure. What is the biggest challenge for renewable development? It might be kind of directed towards Vitaly.

Vitaly Lee: Oh, well, there, obviously there are quite a few interconnection queues. No per. Everybody talks about it. Availability of when and surprisingly, you know, supply chain. I guess all the typical ones. I think one of the biggest challenges is talent. There's a lot of new developers, newcomers, and the companies that have been doing it. They continue growing of the same response to all the demand. And so, we're all competing for talent, and It has been challenging. We've been very fortunate here at Qcells as well. We've scaled to the development team. We are 35 members from now and we continue currently as our pipeline continue. I think that that's the challenge.

Nick Centera: One last question. It's kind of direct towards Qcells, but I think you could include Microsoft as well. But what has changed for Qcells since the IRA? I'll add Microsoft, for that matter too.

Adrian Anderson: There are more tools for us to look at from a tax and sort of procurement perspective. I mean, I think I think our deal, and I in June, who I was, my counterpart at the manufacturing side.

Adrian Anderson: I think you would agree that, like the Ira was is great. Our deal with Qcells. We had actually started talking about it before the Ira, and sort of how we would get around that, and the Ira only bolstered when it came out, only bolstered sort of our thinking that it was important to do this, and important to push domestic supply.



Adrian Anderson: I'm not saying we were smart enough to get ahead of the area or anything like that or just, I think, reinforce that we're moving in the right direction. And hopefully, you know, figuring something out that would be helpful for the industry.

Vitaly Lee: Yeah, I think for us. Obviously, it improved Project Economics gate certainty. You know, we obviously all of us are trying to capitalize on the adders. We are looking at guaranteeing domestic content, starting with 25 cod. but also, it actually opened a universe. I think of additional buyers. We ourselves are very comfortable with the bill. Transfer scheme. and so, utilities, you know, are interested in their transferability, capabilities, and direct pay and other things. So, it is for us. I think that was in my mind. In addition to all the great things that Ira brought. It also opened up a pool of buyers for our projects.

Nick Centera: That's all the questions I have to tell you. I'd let you wrap it up there.

Vitaly Lee: Yeah. Well, well, we've got to wrap it up, Adrian. You, You You're fantastic, Guy. I know Microsoft is a great place. And you along there with your team. Good luck to your team as you really are trying to fill your lofty goals. I know you're doing a great, and you'll do more, I guess, for the rest of the folks who dialed in this is first. I hope you enjoyed this. We have lined up a few amazing speakers as well, so stay tuned.

Adrian Anderson: Thank you very much for having me participate. It was awesome, and, as always.

Vitaly Lee: thanks, have a great day. Have a good day, everyone, thanks so much.