**Russell:** Thanks for downloading this latest episode of Octopus Energy’s podcast, where we are continuing to give you further insight into the company's DNA, the way we work, the way we think, our values, and our people. My name is Russell Goldsmith, and together with my co-host Trudy Lewis, we’re using this time to speak to key members of the team to explore everything from our products and services to the technology that sits behind them, and the culture that is driving us to deliver cheaper greener energy.

In this episode, we're focusing on what it takes to go from zero to over one and a half million customers in just four years, and so we're thrilled to welcome chief financial officer and co-founder of the business, Stuart Jackson. Later on, we'll also hear from Claire Osborne. She is an energy consultant and founder of the Mindset Society, and she focuses on start-up to scale up coaching. Claire is currently working with Octopus, but her background includes two years leading the energy business for the comparison site Uswitch, just around the time of octopus energy's launch, actually. So we were keen to hear her perspectives on the market at the time and the impact we've had.

Stuart, let's start with the fact that like your co-founder and our CEO, Greg Jackson, your background isn't in energy. So I thought we'd ask you the same question that we put to Greg - why did you think you could make a difference in this sector?

**Stuart:** Thank you, Russell. You're right! My background is predominantly in financial services. For some time prior to starting this business, I ran a credit card business. That was very different, but there's a lot of analogies between the sectors. So what we saw in energy was obviously it was an oligopoly, largely dominated by the Big Six energy companies, and they had pretty much uniformly been delivering comparatively bad customer service. The net promoter score for many of them was actually negative. That means they have more detractors than they had people who actually rated them positively. There were issues with billing, they were charging very high prices, and were they more efficient they should have been making a lot more money.

Actually at the time we came into the market, the CMA (the Competition and Markets Authority) were just finishing a study of the market based on the suspicion that it wasn't a properly functioning market. There were a lot of very interesting findings. They didn't specifically find the market failure, but a lot of issues were highlighted, and that was a great backdrop for us to come in. One of the big issues that we observed in the market was the way the incumbents were pricing. So they would - and you see this in a lot of markets -  entice customers in with a cheap offer for a fixed 12 month period, and then when the customer wasn't looking, prices would jump up by 30%, 40%, and in some cases, 50%, and that's how they made money. They relied on that dynamic in order to profit. What we set out to do was use technology to build a highly efficient business that enabled us to deliver - to pinch a phrase from out-of-state - everyday low pricing. And that's what we've been doing. And actually at the same time, we've been able to deliver not only low prices, but demonstrably superior customer service. The textbooks would typically tell you there's a trade off between those two things, but actually through the use of technology, a differentiated operating model, and the kind of people that we've hired or brought to this, we've actually been able to deliver both.

**Trudy:** So in the previous episode we heard from Greg and he was telling us about raising the finances and what was needed to start the business. So just going back to the very first day, and you're sitting in your office, you've got this £10 million investment from Octopus investments. So how do you then start to go about getting new customers?

**Stuart:** As I remember the first months were dominated by signing a tremendous amount of contracts, just to be able to operate in the market. National grid actually sent us two bankers boxes of contracts, and there was an awful lot of very technical complex stuff that we needed to read, and work through with the lawyers and understand the construct and the industry.

But once we were through that within. About three months, I guess we were able to start taking our first customers. Our very first customer came in on the 21st of December, 2015. It was a momentous moment, we all crowded around while we switched one of the team. And in the weeks that followed that we set about switching friends and family and employees of Octopus Capital - our backers. And actually it was really instructed for us. So the message to all of those people was: ‘Switching is easy. It's really genuinely effortless and we can work through it with you in a few minutes. You're almost certainly going to save a lot of money, especially if you haven't switched for a long time and you're being ripped off by your existing supplier.’

We asked people to share their bills with us so we could actually see whether we were going to save money or not. And then pretty much every case we were, and sometimes it was really material - hundreds of pounds across a year. And obviously, because they were friends and family and colleagues, essentially, they knew that if anything went wrong, we would absolutely make it right. And despite all of those things, people found it quite difficult. It was really instructive for us about the consumer psychology of switching.

**Trudy:** So how did you make it easy for people to switch suppliers?

**Stuart:** So what we learned through those early weeks was that switching is perceived as complex and, and in some ways risky, even when we were saying: ‘you’re definitely going to save money by switching.’

So we did a lot of things pretty much straight away. Unlike almost everybody in the market at the time, in fact, we said there will be no fees for switching away from us. So you're going to commit to a 12 month contract, or rather, we are committing to giving you a fixed price over 12 months, and if you switch around in the meantime, there is no fee. And that took away one of the risks. If we weren't delivering, there were no downsides to moving away.

We also worked really hard on the customer journey through the web signup. We made it as simple as possible, but just always giving you confidence that this is an easy thing to do and not putting any barriers in the way.

We worked really hard on the messaging as well, to try and reassure everybody that this was an easy thing to do. So we use testimonials of customers. As we started to get customers we got them to share genuine feedback, and we put that on the website. We also, importantly, we made it very quick and we told people that it was crate and almost made a game of it. I think our record switch was 31 seconds. So that, that also starts to take away a barrier.

**Russell:** That's pretty impressive. Given that you were so new to the industry. What, what would you say were the really big unknowns when you started?

**Stuart:** There were obviously a lot. One of the big ones was what's going to happen to customers when they come to the end of the fixed period of the contract. How many of them are going to stay with us? How many of them will want to refix on another product? And how many of them will just go back to a price comparison site and see if they can find a better deal or a different deal? And we solved that problem by getting some early insight. We sold really short products for a couple of weeks. I think it was a three month product. So we knew that, right. We didn't have to wait 12 months, which was helpful. Yeah.

**Russell:** Okay. I mentioned in my intro that I'd spoken to Claire Osborne earlier, as a reminder, Claire was at Uswitch around the time of our launch. So I started by asking for her perspective on what the energy market was like at the time.

**Claire:** When I think back that far, I guess the first thing that comes to mind to me is it kind of being a little bit of a mess. I remember, you know, just prior to that there not being many competitors to the Big Six - OVO being the biggest one that was going to go after them. We were just kind of starting to see all these smaller newer players enter the market and, you know, it was really hard for me in my role at Uswitch to figure out who were the credible new entrance there, and I can only imagine it was just as hard for consumers to do the same as well. So yeah, it was, it was kind of a really messy market - lots of options and a lot of, not a lot of clarity on who the good ones were.

**Russell:** So what did you think of Octopus Energy emerging as a new challenger in this sector?

**Claire:** Well, I guess my first thought was that we'd already seen some really interesting energy supplier names! We'd had Oink and we'd had Zargon, so Octopus? What! But after that, I guess my first impressions were meeting people at Octopus and having some really in-depth discussions about what the vision for our industries were and how those could come together. What was just so incredibly different about that conversation was that I was used to sitting in all these meetings with all these different energy suppliers, and they're all coming and saying the same thing to me: 'we're going to be smart. We're going to be simple.’ And I'd come out of each one of those meetings going great, but how? And what I got a sense of in the conversations I was having with people at Octopus was that they really understood the details of what they were going to do differently for consumers, when compared to other people I was speaking to, and that was really important. They were able to paint a vision for the future. And I think that's been a big part of the success because it's that, that kind of pulls customers to them, but also pulls the people to them who are going to make it happen.

**Russell:** So Stuart, that was quite interesting - what Claire just had to say there - what were your thoughts about what was happening at that time?

**Stuart:** Yeah, it was interesting. So, certainly in the year that we started, there were probably another 20 energy supplies who also entered the market. It's not surprising in retrospect to hear Claire’s reaction. There was a lot of eye-rolling when we would say to people, you know, ‘we're a well-funded new entrant with a vision that is going to generate a great deal of efficiency, and we're going to be really differentiated from a customer's point of view.’ I think it's fair to say we’ve done that, but it was a reasonably crowded space in terms of new entrants coming in for a year or so, or a couple of years. You know it kept us on our game.

**Trudy:** So Stuart, customers are now coming on board, but you obviously have to expand beyond friends, family, and new recommendations. What sales channels did you put in place to keep that momentum going?

**Stuart:** There's a process called controlled market entry. That's a regulatory requirement. So you have to prove that you can operate for a few months with a few hundred customers. We came out of that in April, 2016 and then set to starting to acquire customers. You feel like you're starting to slowly put on the throttle and you know, we were still testing new ideas and new systems at that time. A feature of what we have always done and we continue to do is testing and learning. We're always testing things. But one of the things I was very conscious of from my own experience in financial services, is that the way you go to market and the sort of channels that you use to acquire new customers really can make a difference to the performance of the business. So the customers you get in one channel can be really quite different to the customers you get to in another channel, in terms of how likely they are to stay with you, whether they generate more or less bad debt, or the size they are - some channels deliver customers who've got bigger houses or perhaps they just consume more - they're more likely to be at home. I knew it was really important for us to build a balanced portfolio. So we actively went out and started to build different routes to market. So we went to price comparison sites - that's relatively easy to switch on, but we also started working with Telesales, and I suppose this is probably a year or so later, but we also entered field sales - so we started putting teams out to knock on doors. That was very controversial at the time, because it was only a few years before when some of the big six got fined for miss-selling, and there were some pretty heinous misdemeanours. We looked at those very carefully and said how do we make sure this doesn't happen? For us, we were able to use technology to actually really control the sale and the process, and give us a tremendous amount of insight, so that if there were any issues, we could pick them up very quickly.

We also invest a lot more in training and developing the people who are working for us. And the feedback is they actually love working with us because we give them a good product that's easy to sell. I think a lot of the mission actually helps as well - it gives people things that they believe in that they can go and talk about and share with customers.

We actually started to get feedback quite quickly, along the lines of: ‘normally I won't entertain anyone. I'm knocking at my door and trying to sell me something. But in this case, the young man or woman was very courteous and they actually talked me through switching, which isn't something I've done for a long time, or ever,  and as it happens, I've saved up all the money and I'm really grateful.’ It was a great service. And once we started to get some of those, we knew that we were really onto a good thing, and it was important for us to be able to reach those customers that weren't really engaged with energy. The thing is, if you go to a price comparison site, although the price comparison site might've already done some work to find the customer, those customers are people who are inherently more motivated, and we wanted to reach some of those customers who had been the 30% also of the population at the time who have never switched and who were being robbed royally by the Big Six. So, yeah, so in that way, we started to build a portfolio of channels.

In our quest to find those customers that weren't engaged with energy. We also started working with partners, and the idea of using other people's brands and other people's customer franchises as a way to have that conversation. We've learned a tremendous amount doing that over the last few years, but our first significant partner was Arsenal football club, which was very exciting. And I guess it is probably fair to say that as a vehicle for finding new customers, it's at least directly not great because clearly when people go to football matches, they want to watch football and not think about switching energy, but the brand association and the things that we've gone on to do with the club in terms of renewable energy and the benefits of renewable energy through this amazing illustration of us powering the Emirates stadium - it's a very visual way of thinking about energy consumption. I think it’s three megawatts when it's running, that's just numbers - but it's a tremendous amount of power and that's all powered by renewable energy, thanks to the work we do with them. We've actually gone on subsequently to help them install a battery, which means that they are able to take more power when there’s an excess of power on the coming into the grid (which is typically a time when there's a lot more renewables generating). Then at other times when there is less generation happening, typically when the sun's not shining or the wind's not blowing - they can consume the stored energy that was generated at times when renewables were in surplus. So it's really exciting an it's been a great case study.

**Trudy:** So you're going to continue with partnerships then. Would you say that that approach is really successful?

**Stuart:** Yes. We've, we've subsequently gone on to work with Marks and Spencer. So we run the Marks and Spencer energy. And more recently we won the contract with the greater London authority to run London power, and they'll have very different flavours and in some ways different missions, but the thread that goes through all of them is excellent customer service and green energy supply. I think the way we tell that story with those partners will be quite different.

**Russell:** As a Spurs fan, I won't hold it against you that you chose to partner with Arsenal, but have you, have you experimented with any other ways of bringing into the sales?

**Stuart:** We've done a lot. One of the early things we tried was selling and leasing smart thermostats. Uh, so we worked with Nest which is now part of Google. And they told us at the time that we were the first possibly the only energy supplier in the world that was actually able to add other items onto their bill. So our customers that took a Nest whether it was a purchase or a monthly rental, would just see that on their energy bill itemized, underneath gas and electricity, which was exciting. We didn't do a great deal of that, but I guess at the time it really helped us to build the technology to be able to do that and think about how we cross sell and broaden the business. But there was just so much to do in just building our core gas and power franchise that we really invested a lot more of our time and effort on that at the time.

I think in terms of other things that we've played with, we introduced a referral fee. So any customer of ours gets a special code that's personal to them that they can then share with friends and family. And then they both are rewarded, which is great. It makes everybody feel good about sharing good customer service.

One of the things that we've learned through that is actually sharing services is a very personal thing. You stick your neck on the line a bit, even if you're getting rewarded for it, people won't do it unless the service is genuinely excellent. So we feel as well. We worry a great deal about the customer service that we give. When you're asking people to refer you - it has to be great. We also have special offers and that sort of thing has been really interesting for us to experiment with.

I think one of the most defining changes in the industry that's happened in the last couple of years is the advent of the price cap. It's something that we worked hard on. We contributed a lot to the debate and it has been hugely impactful for the industry.

**Russell**: In what way would you say, you know, it's been so impactful?

**Stuart:** So you remember earlier, I mentioned that there's this phrase (tease and squeeze) that we coined working with a BBC journalist with whom we shared a lot of data and were able to really bring alive what was happening. Surprisingly, although every individual consumer might feel that big jump in price after 12 months, when you stand back and look at the data as a regulator might, it's quite hard to see, because it wasn't happening all of the time. So we worked very hard to share data and bring alive what was happening.

And what was happening was that the incumbents were profiting very greatly from consumer intransigence. And when the cap came in, it effectively limited their ability to do that to some extent, and it accelerated the transition in the industry. So there were these dominant - in terms of their market share - who were profiting through this mechanism. They were pretty inefficient in terms of the amount of operating costs that it takes to run customer accounts - and they all knew they needed to start to become more efficient and bring in new technology and modern systems that joined together all the different pieces that are required to run a modern energy service. But it was a very difficult thing to do, as any incumbent in any industry would know, and what the price cap has done has created a burning platform and the incumbents have to change - it’s become existential. So we've already seen SSC exit the retail business. OVO bought that business and Npower is effectively being acquired by EON you know, through a complex deal.

We know the others are already working hard to transform their businesses. So British Gas recently exited its North American retail business, presumably to improve their balance sheet and raise funding to be able to support and transform their UK business, which is predominantly what's left. So massive, massive change and a great opportunity for them. Of course, as a challenger in that market.

**Russell:** Well, before we carry on, I also asked Claire Osborn what she thought of this growth strategy and how she felt that octopus energy differentiated from the rest of the market.

**Claire**: I guess what struck me about Octopus is that they actually really went out of the way to answer a question that was causing consternation in the market. So there was this point of big price hikes at the end of, of contract terms, and they went out of their way to create an answer to it and to package that answer up in a way that people could really understand it and buy into. And so, you know, they had a pricing strategy, which consumers could understand, but also that right at the kind of the sharp end on a results table could still look pretty competitive.

But then kind of matching that up with kind of two factors - I think one basic, and one really about creating noise and glory, with the basic being ‘just get the service right’. Like do whatever it takes to deliver something that you would be proud of - something that if you were a customer you would be grateful for. And kind of working with Octopus, I've seen people make compromises to make absolutely sure that that happens in a way where in many of the other energy companies I've worked with, the compromise would be on the quality for the customer. So there's that. Set a basic good standard and then match that up with creating products, propositions, messages, which create noise. So you use something like the Agile tariff or Go, and you create some noise about that. And then, and then once people are talking about it, they're talking about you in the context of, ‘and they're great in terms of the basics’ and that makes a really compelling story.

**Russell:** So Stuart, as you're introducing all these new channels, what were you doing to monitor successful sign-ups and I'm guessing that inevitable journey of some of your customers.

**Stuart:** Yes. So because of the proprietary platform that we were starting to build we had, and I guess one of the luxuries of being a newcomer to a market is, is that you can build technology from scratch that enables you to integrate all the modern things that were just add-ons for other people. And that meant we had great data at our fingertips and we used modern ways of viewing that data. So I remember in the early days, we coupled together very quickly a Google sheet that we had on a big screen in the office with some key metrics, but probably principal amongst those was number of customers signed up by which channel. We looked at it all the time. In fact, I remember one of our first board meetings. We had it up in the board meeting and at some point during. Hour and a half meeting. It ticked up one. It seems absurd now, actually, but it was a joyous moment just to see that - whoever that customer was - pop up.

When you're small milestones come thick and fast, and then they space out more. I'd say that we had a really big party at 10,000. I think you probably did something at 50,000 and a 10,000. And then I actually, we were growing so fast after that, we sort of planned a party for the next milestone and accidentally burned through it. So we had to rename the party.

**Russell:** Is there anything that didn't work and if it didn't, what were the lessons that you learned from there?

**Stuart:** Lots I guess. And honestly, there's always things because we're experimenting and testing with things all the time. One of the sources of growth, I suppose, that didn't work well was selling to landlords properties between tenants - it's known as the void switching. And actually it's not a great experience for anybody. So the idea is that the property's already switched to Octopus and whoever moves into the property is able to benefit from great customer service from green energy supply from day one. And it was sold really through or to estate agents who typically are managing the lettings. Estate agencies have become a tougher business these days, thanks to people like Right Move, and the sell by the people that we were working with was that this would provide additional income to the agencies.

In reality, the agencies, you know, even if they're managing a property, they don't really enjoy a relationship with the tenant. Particularly what we found was tenants coming into the properties weren't really engaged with us, but they didn't choose us. So it wasn't a great experience for them, and often people would switch away or we would move on without paying, because they didn't feel that they had a relationship with us. So that was something we did, and it didn't work and we've stopped it. You know, periodically in the earlier days there were issues as we were playing with the tech, if a collection didn't happen, then we need to make it happen very quickly. But there's always a customer side to that. And anything that causes disruption to a customer's finances is horrific. You know, obviously we work very fast to resolve anything. There was an incident actually more recently where an issue with a third party financial institution that we worked with actually ended up calling a direct debit to one customer many times over. It was a freak tech incident. It's the sort of thing that happens periodically to any business. But when you're testing things and moving very quickly, things can happen. The key is that you sort it out fast and you are able to bring together a lot of resources cross-functionally across the business and get things done.

So in that case, we were able to effect a same day transfer. We put money straight back into the customer's account. There was a lot of communication with the customer and the issue was resolved and it was all fine. Those sorts of things become terrible incidents if you don't sort it out and a customer ends up fighting and struggling with the machine to get a genuine problem sorted, and we're able to avoid that sort of thing, because we are able to bring all the resources together and move very quickly to get things done.

What we found is generally when incidents do happen, customers are pretty understanding as long as you sort things out and you're very clear and you communicate well with them and they are able to trust that you are doing what you say you do.

**Russell:** So what about acquisitions? Tell us about how that's going and also, you know, the process for it.

**Stuart:** You're talking about inorganic acquisition. I guess a lot of what I've talked about is just how we organically acquire customers. We have done quite a few acquisitions. Now, the first one we did, we bought a small energy supplier, Affect, that was based in Shoreham by Sea near Brighton. At the time they had 20,000 customers. Although already we were quite a bit bigger than that, it was a great starting point for us to be able to prove that we could migrate the customers onto our platform, and continue to deliver great customer service. And by the way, Affect were already giving great customer service, so to actually continue that experience and, and handle the operational changes was great. And we've done that in several ways. We’ve actually taken on a couple of failed energy suppliers, most notably, IRESA. They’d built their own system that really wasn't working, and actually it was a very complicated job to unscramble what was in customer's accounts and bring it onto our system in a way that was good for customers as well.

With that one, there were over a hundred thousand customers. If you muck something like that up, your operations are sure going to be busy. So we worked very hard, built a lot of technology to enable us to resolve those issues and interact with customers automatically around some things. It was really helpful for us and enabled us to get through that within a couple of months, and to turn around would have been a very bad customer experience for customers until that point. The feedback we've had is that they've subsequently gone on to enjoy a regular good customer experience with us.

More recently we took on the Co-Op energy customers, which included GB energy and Flow energy, so three different businesses effectively from them, which in total had about 300,000 customers. And we did that, in the autumn last year. And actually more recently, we've also taken on the retail business from Engie, the French supplier. So we've done a lot. We've learned a lot through that. We’ve become very fast and very effective at migrating customers smoothly onto our own platform. But we've learned a lot through it. Actually talking about GB energy - that we took with the Co-Op - when that business first failed in 2016, I think we actually applied or bid to take on GB energy. At that point when they had 160,000 customers that would have been a lot for us. We didn't do a great job of bidding and really understand

what was involved with taking on a failed supplier. So in many ways, in retrospect, I'm slightly relieved that we didn't take it that way. There’s a huge amount going through that process that we were subsequently able to apply with the other more complicated businesses that we took on.

**Trudy:** And these customers that you've gained, how did you engage them in order to keep them? Because surely some of them could switch again.

**Stuart:** Yes. That's always true with any of our customers. And, and of course, when you're moving from one supplier to another and the new one, of course being one that you, as a customer, didn't choose, that's, that's a very risky transition.

So yes, we over-communicated, actively. The outgoing supplier would send communications explaining what's going to happen, Introducing octopus and importantly telling people that Octopus as the new supplier would be the name that suddenly starts appearing in your bank account instead of the other supplier. Then we would then send communications to those customers, introducing ourselves and explaining what was going to happen and telling them about us and why we hoped that they would enjoy great customer service with Octopus. I'm pleased to say that the amount of customers that we've lost through those processes have been relatively modest.

**Trudy:** Can you give us a sense of what growth has meant to you as a company, especially in terms of revenue, scaling and how all of that has impacted the business?

**Stuart:** So we've grown! In our financial year, we turned over 50,000 pounds. The year that's just closed, we've turned over about 1.2 billion, and through this next year, we'll turn over 2 billion roughly, which are incredible numbers. And I've often sought ways to try and visualize that. And, um, I think probably the most striking one is that some of the largest football clubs in this country, in the Premier League, turnover in the order of £500 million pounds a year. So you can think of it like this - this year coming Octopus Energy's turnover will be roughly equivalent to four of the largest football clubs in the Premier League, which of course each of those in their own right are huge brands. They're global businesses - they're big businesses, and that really proves it home for me.

We tried to visualize it in terms of what it would mean in bank notes and in practice, if you had it in 20 pound notes and you packed it into suitcases, it would take roughly seven jumbo jets to carry at all. I mean, these are huge numbers. Of course it's a very narrow margin business too, so although there are really big numbers, the opportunity to get it wrong and lose a loss of money is ever-present. A mistake from a revenue that size can, can kind of hammer your profitability immediately. So we built processes. The way we hedge is that the expression that the market uses for managing the risk that we take - when we give a customer a fixed price for 12 months, effectively, we'll buy the fuel for that customer today.

And that way we know that the price that we've offered you is, is a price that we can, we can honour without losing a lot of money. And if you don't do that, you're crazy at any scale because the markets move around a lot. In fact, the wholesale price of energy increased by 60% in the six months to September, 2018. And anyone, any, any energy supplier that hadn't already bought fuel to match against the contracts they were selling to retail customers that fixed prices are going to be in a lot of trouble.

So we we've done a lot in the background and we use a lot of technologies. So today we've got a small team of data scientists and artificial intelligence systems that we built that help us forecast for every meter. For electricity we’re forecasting consumption for every half hour throughout the day, and for gas. I mean these models have billions of rows of data - huge complexity.
 **Russell:** So I want to ask you about the future of the business. But before I do that, I also asked Claire what she thinks as an independent observer of the direction the company is heading.

**Claire:** I think it's really exciting. It's really great to see the focus on technology because I think that's the thing that's really going to transform the industry and create a sustainable business for the long-term, where it's not just about selling kilowatts of energy, it's really about enabling a much broader market to grow. Both in the technologies that will enable great use of energy by consumers, but also in helping other companies to revolutionize those markets. So I think that's really exciting. I think there's also some tough challenges ahead for Octopus. I think a big part of what's made octopus successful is this really clear culture and vision for who they are. And using that to recruit people who care about the same things - who stay up late at night, thinking about how they can make the world greener or, you know, the technology that little bit more efficient, and I think that gets harder at scale.

The other thing that octopus has done really well is, is just move fast, and to steal a term and hate myself using a cheesy term, but move fast and break things. And that's an easier thing to do when you've got that kind of tight culture where everybody understands what works and what the priorities are. I think, as they get bigger, it's going to be hard to kind of maintain that constant force of, you know, bringing out new propositions, but challenging their competitors and creating surprises in the market. And so figuring out how to keep that culture and support their people through those things, I think are kind of big things to look out for on the horizon.

Russell: So Stuart, you heard what Claire thought there. What about yourself though? About the future? Can you share any plans that you have to continue this successful growth?

**Stuart:** In many ways, the opportunity and the ambition gets stronger. So when we started the business five years ago, the plan that we wrote was to deliver just over half a million customers in five years. And obviously we've broken through that very significantly. We set out to build a highly efficient energy retailer through the use of technology, and we've done that, but what's, what's actually transpired in the meantime is the way the energy markets are starting to change worldwide. And there's these common factors all around the world, pretty much, that there's this massive pressure for de-carbonization and imperative that just gets louder.

One of the ways of doing it, or part of the solution of that is to build renewable generation. Now that's typically quite volatile because it depends on when the sun is shining or the clouds are in the sky or over a particular field or when the wind's blowing how hard its blowing and those are actually quite difficult to forecast, particularly at short intervals.

There's also consumer technology that's changing, even in the five years it’s changing and the way consumers are getting used to interacting with the phone or having things controlled for them is changing. Those things all bring together, create this environment that's right for us, where an energy retailer, rather than just supplying the electrons and molecules actually now has an opportunity to help their customers consume power, in particular, at times of day when there is most renewable on the system, a bit like what I was describing with Arsenal earlier. Now that sounds far-fetched because people don't really like changing their habits, but they don't need to, as it happens, if there's a battery in the house and some computer-control technology.

Then we can start to make decisions for people and optimize when they're consuming their electricity. So you might still put the cooker on and the lights on at five o'clock on a winter day when the children are home, but actually that electricity was generated and fed into your battery perhaps in the middle of the day when the sun was shining. Those are things that are present today and the economics are becoming more and more viable. What's hard is actually that ‘control’, and enabling the systems that control those things or incentivizing and systems that control these things to make their decisions. And that's our role. So we are able to expose different prices to customers that reflect what's actually happening in the wider system and do so in a way that incentivizes the whole system to start to change. It's complicated, but it's very exciting. And that is an opportunity, and around the world the technology that we've built allows those things to actually happen. We’re doing it today. So the opportunity now is to scale that in different ways, in different places, which is huge. What we're really doing now and thinking about is how we create a platform, a global platform, and a global business operation that's able to support that in different ways. It's a huge challenge and massively exciting opportunity.

**Russel:** Okay. We've got one final question for you, Stewart. Um, now you've been very open with us about the organization, but what we really want to know is more about Stuart Jackson. So For example in less than five years, since you co-founded this business, you've gone from zero to a turnover of one and a half billion. And in fact, as you said earlier, you're heading towards 2 billion. So that's a hell of a journey that you've been on to becoming CFO of one of the biggest private companies in the UK. So what we want to know is what have you learned personally, in that time? What mistakes have you made? I'm sure you've you must've made a couple, um, and what keeps you up at night?

**Stuart:** Yeah, well, in truth, uh, we worked pretty hard. So when, when sleep comes I tend to sleep pretty well actually, but of course there's a lot to worry about now as the business has got bigger. It's been an incredible journey. So when we started, obviously we were a small team and we obviously had to roll our sleeves up and get stuck in and do everything ourselves. Previous roles - I’ve run bigger teams and learned about being a senior manager and having some leverage. We didn't have that to start with, but that was great at that time because I learned a lot of very fundamental things about business and the industry and I carry a lot of that with me today. It helps me think about and evaluate things at a higher level.

Obviously, as the business has grown and the pretty significant team here now I have a lot more experts and specialists and people around me who can help. That's so important. Throughout this journey, our board has been urging us to hire ahead and invest in people. And that's actually quite hard to do - to find the right kind of people. And we probably didn't do enough of that - I haven't had enough space and time personally to sit back and see the picture all the time and actually look after ourselves as individuals, to some extent. We've worked incredibly hard to build this and we continue to, and having talent around you, people who can actually start to take the ball - and there are many balls now - and start to run with those is really important.

And yeah, hiring ahead, not waiting until you actually need people is definitely a big, big learning. I think nowadays as the business has got to a pretty large scale, the big question is what can I not see? What's actually happening below the surface. And issues happen - that's part of life, part of your larger business with a lot of customers, a lot of, a lot of team around us, but if we've got the right team and the right culture and the right structure and the right amount of resource in place, then I feel more comfortable than whatever is thrown at us is something that we can solve. The key of course is always seeing it quickly.

**Russell:** Tremendous. Stuart, thank you so much for spending some time with us. Once again, like your colleague Greg, this was going to be a quick chat that's been about an hour, and I'm sure it could have been a lot, lot longer. There's obviously so much to cover, but good luck with all those future plans of course. For now, Stuart Jackson, thanks for joining us. Also thank you to Claire Osborne for her contributions too. As always, if you've got any comments on anything that Stuart's discussed today, please do get in touch by the website and that's Octopus.energy or via the usual social channels. But for now from Trudy Lewis and me Russell Goldsmith, thanks for listening, and goodbye.