147 TRG Transcript

Mike Stohler

What if you could be doing something smarter with your money that creates income. Now, if you're wanting to get ahead financially, and enjoy greater freedom of choice, if you want a comfortable retirement, and you know you'll have more choices, if you can do more with your money. Now, if you've wondered who else is creating ways to make their money work for them, and you want actionable ideas, with honest pros and cons, and no fluff. Welcome to the Richard geek podcast. Where you here helping people find creative ways to build wealth and financial freedom. I'm Mike Stohler, and in this podcast, you'll hear from others who are already doing these things, and learn how you can too.

Hey, everybody, welcome back to another episode of the Richard geek podcast today we have Richard Flentge. He's a former co-host of EVTV, which is a worldwide webcast, private Renewable Energy Research Facility. This guy knows everything about or we'll find out if he does, what electric vehicles, we're going to talk about Tesla's Solar Tech and battery tech solar innovations and all that. So, it's, it's a pleasure to have you on Richard, how you doing?

Richard Flentge

You know, I'm doing good this morning. It's a low humidity day here in Missouri. So that's always a good way to start. It is I'm excited I I've been writing on a book. And that's kind of been my latest thing I retired a year or so ago. And so I really write and kind of advocate the electric vehicle revolution and try to help bridge that gap between the people that love it. And the people that don't love it. Yeah.

I have a good time. I seem to irritate both sides when I get around to it. So

Mike Stohler

well, there's nothing wrong with with doing that, you know, it's, it's funny, I have a Tesla. Yeah. But I have it because I like the tech. And I like the speed. You know, and I'm not one of those. So I'm kind of one of those oxymoron type people. It's like, you know, I'm not doing it, because it's good for the environment. I like it, because it's a cool car. How do you

advocate? Some of the people, you know, like, there's a lot of people that look at the Tesla and go, you know, what the hell are you doing?

Richard Flentge

Yeah, there's a I had a little bit of a hot rod background. And that's sort of how I got into Eevee. TV. I originally did the Custom Truck fret craze back in the 90s. I had a big customer there in Phoenix. And they did the keep on truckin and convertible little mini trucks. And so I had a flare kind of for hot rodding and we the originally started out with a business, converting gasoline cars to electric. And that was where, where I got started. So I sort of started on the Hot Rod side. And then we ended up, Tesla came along, and basically just wiped that business out. Because if you were going to spend $40,000, for something you were going to cobble together just to have an electric car. You could spend a little bit more and get a Tesla and it worked all the time. So we were there really right at the beginning. I have funny stories we now back up just a little bit. The founder of the company was an internet entrepreneur. And the guy that I worked with actually had a very interesting story. He was one of the original Internet board watch guys. So he was back there at the very beginning of the internet. And he ended up catching a wave in the stock bubble and made a bucket load of money, like 10s of millions of dollars. So he came back and started this company and he wanted to evangelize the electric vehicle. And that's where I came along. So we were there. Working with lithium ion batteries. Really about the same time. Elon Musk and JB Straubel were building the Roadster ended up we would To convert, mainly V W's BW has that transmit out transmission. And you could make a electric motor right up to the transmission with a coupler and an adapter plate and began doing like we did a little speedster, and we did a couple Porsches and VW things and all that took off, well, Tesla wiped that out that whole business model. You know, people still do it. And we still had, there's still some contacts. And there's a couple companies in California that still do it. So that went away. And we started working with technology. So what the company did, and I did more management, I don't want to make any claims that I was an electrical engineer. But we basically hacked the Tesla Model S, and developed a hack software that would operate the Tesla battery modules. And, and I don't know, if anybody is you kind of get familiar, you want to talk about technology. Tesla basically advanced, a complete software system that controls everything. So you have an a giant line of code that feeds everything. So like, every single code line runs through the entire network. So your devices, your brakes, or accelerator, your headlights, your air conditioner, all received code. So then your breaks will only respond to a code that say starts with B. And your air conditioner responds to the code that says, AC. But what we did was or what, what, as a collective group, we did what was called a can Sniffer, and we tapped into their computer network. And we sniffed out code. So when we did certain things, we could capture the code. And then when you capture the code, you can hack out all the rest of the parts. And then we develop a small

little microprocessor that would spoof the Tesla car and tell the batteries to turn on and off. And if you don't do that, the batteries remain simply dead. They don't have any, you don't have any way to operate a Tesla battery, it's not like a car battery, it's still alive, it takes itself and completely goes dead. So we developed a way to operate Tesla repurpose them, they would take them out of salvage batteries, our salvage cars, we would take the batteries and put them together and put a little controller on it. And they would go to sometimes, mainly solar builders, and off grid people buy cars, there we go. The salvage, the salvage, Tesla was much cheaper, because batteries are still fairly expensive, somewhat of a hindrance to that business.

Mike Stohler

So what do you think? What do you think the future of the lithium,

Richard Flentge

lithium is the technology, we tested multiple batteries. And that's one of the things we did in the research result. So you would take a battery, you would charge it up, and I'm talking like an individual cell or a small battery, and then you would create various loads, so you would try to draw the battery down. And then you would see how long it would maintain its current before it goes to what's called a drop off or a discharge level that no longer makes it operate. And really nothing Nothing comes close to lithium. So as a whole lithium is the answer in terms of cost effective and really maintaining the charge

Mike Stohler

Yeah cuz you know I think that's one of the the the arguments with the electric cars is number one, we don't have enough lithium or we don't have enough electricity to generate all these cars. And so you're saying that lithium is still the answer over something like a natural gas car. Propane car. Oh, that's

Richard Flentge

yeah. That's still thoroughly convinced lithium.

I will lithium. I will evangelize

I do not believe in terms of energy density, in terms of cost per energy density. And really overall effectiveness. This is going to be the lithium battery. And that's really what I proclaimed in the book. Well, kind of the title and the way I subtitle the book is basically the lithium batteries gonna save planet Earth and stop climate change. And that is the technology. Absolutely.

Mike Stohler

So you think there's enough that we can find enough lithium? Yeah,

Richard Flentge

yeah. Yeah, I believe that. Yeah. There's a lot of lithium. The entire country of Afghanistan is lithium. Just China has got a lot of you found a lot in South America. Yeah. And it is. It is mine and bowl, and it is producible. And it's a pretty large, largely available component. So

Mike Stohler

yeah. And you think that, you know, Tesla started at all? And, you know, I hate the fact that seems like the government is all of a sudden anti Tesla.

Richard Flentge

For some reason, they put some pressure on Detroit. And they put, they put pressure on an existing base employs a lot of people. I'm a big fan of Detroit, and I love their cars. And I believe they're going to come on. But they have a large ship ship have hundreds of 1000s of employees. And they got to move in another direction. So in a way, they're if anything, they're they're sandbagging Tesla and slowing it down a little bit to let Detroit catch up.

Mike Stohler

Yeah, it was too bad that the, you know, the government that we have, would do that. You know, here's Elon Musk is the innovator. He's the creator of this wonderful technology. But because he's not a unionized company, they're like, you know, we don't care about you. We only care about people that give us money, you know, the lobbyists and things like, and so it's just, it's a shame that, that you have a party that sits there and says, We need all this. We need the lithium, we need electric cars, we need this, but we hate Elon, because he's not playing the game that we want him to play.

Richard Flentge

Yeah, I think it goes even a little deeper than that. I think he truly, he could upset the applecart over there completely. And he could have Tesla pounded it. And it could topple some some company. So, you know, in a balanced approach, I think we have to be, you know, somewhat aware of what we do here, because it is a disruptive technology is going to, you cannot imagine just the parts support that goes into an internal combustion engine. And you're talking about 5000 people, they make die stamping, milling, machine forging, all that is going to go away. It's not just even the automakers, it's a nother magnitude of three of their supply chain. So it's it's, it's somewhat is a macro problem.

Mike Stohler

Yeah, yeah. So what do you think about other type of you no savings, as far as you know, the wind farms and

Richard Flentge

wind farms, where are working, they are working in certain positions. Now, overarching, I talk about a portable battery. A portable battery allows you to store electricity, you could actually put that stored electricity on the back of a truck on a train trailer, on on in a car and you can move it. The one thing about wind farms is that they're not usually very close to populated areas. And there is with a wind generated DC there is power loss. So if you can imagine this, just taking the power from the top of the tower to the bottom of the tower, through wind farms, get loses some of its power. And you know, originally found that out was Thomas Edison. And he proposed DC electric. And what they found out was though they had to build a power generating station about every mile to contend with the power loss. So when you factor in the new lithium ion battery, I would argue or I would advocate If you would put a giant battery, right at the base of the windmill, you would capture all the electricity in a bank and do it much more efficiently. And if I would say if I would prophesize if I would say into the future, I really believe scenarios in which we have battery banks, close to an energy source. I think that's kind of the next picture that's coming along. Like wind farms are working.

Mike Stohler

Yeah. And it just needs to be everything needs to be cheaper. It's a right. Yeah. For me being an analyst. I look at all right, you know, it costs this many hundreds and hundreds of

millions of dollars to do the wind farm. So the per capital costs per home is, it's, it's crazy. You know, it's so you're like, Okay, it's, we're spending this amount per home, to do it the green way. But it's got to be cheaper, we have to somehow get the technology to the point where you can't spend a billion dollars to electrify 25,000 homes. You know, it's just it doesn't make sense. So there's, what do you think is going to be? You know, because you're going to have those analytical people that say, look, yeah, it's, it's great, but it's not sustainable, because of the cost.

Richard Flentge

You know, it is overarching, it is a disruption. Disruption really means disruption. I believe that the battery on scale, is really the breakthrough technology, the portable battery. And you live in Arizona, another scenario I would paint for you, you build giant solar arrays, you store the electricity directly into a battery on a train car, that train car, then delivers it to Chicago. Okay, the no transmission lines, no giant infrastructure belt, just a giant battery that gets transported from where the energy is produced, to where the energy is consumed. So and Elon, it has mentioned this, and you sorta year it, we can't build enough batteries fast enough, great. But we're gonna have to have a massive battery leap in capacity technology, and that lowers the costs. Now, the other thing I will tell you is that lithium because its power dense and cost effective in a car. Now, there are some other technologies that don't have to be so dense and don't have to be so expensive. So if you're not putting in a car, you don't have to have space considerations. You don't have to have it so tightly configured, you could build some lower cost batteries, and it'll probably work. Yeah.

Mike Stohler

How about just the cost of even I think Elon Musk said this, we just don't have enough electricity. Exactly. Right,

Richard Flentge

that now that, you know, when you look, you know, you've kind of mentioned her about the government. But if you look behind the curtain, that's one of it. I've had literally people at my table say and, you know, the grid can't handle this, you know, you know, we don't know, they don't know how the grid works. Now. They it's almost like, it's a pressure system that they maintain. They're not exactly sure what they just know, at work. So yeah, there are concerns they are legitimate. So I don't try to I don't want to understate that

they have legitimate national issues that if you start drawing down the grid, you could create havoc in some way, I

Mike Stohler

guess. Yeah. Okay. You know, you're looking at California right now. They're, I think in by 2030 2035. They're saying no, gas engines can be sold. So everything has good electric. And there's policies now that if you build a new home, you have to have a, like a level two charger in every new built, but they're also doing rolling blackouts

on their grid, so it's like, okay, you know, sorry, boss, I can't come to work today, because there's a rolling blackout and I couldn't charge my car.

Richard Flentge

And that kind of again, it keeps you keep circling back to the battery and the battery bank. So if you weren't sure solution, you would have a battery bank reserve system. Okay, you have a water reservoir. So yeah, you would run the electricity and say you ran it from two in the morning till four in the morning, you filled up that region's battery bank, then if you want to Black it out, you Black it out, and and the users can use the stored electricity in their battery bank in California has already popped a Tesla mega packs scenario. So they have one there were like that. But the the, the magnitude of that is multiple millions of battery banks. Well, if we started producing batteries right now, at a huge rate, we still would be you've got a ways to go.

Mike Stohler

So you have to do something like the Tesla wall, you know, the solar where you can just store your bank in your house. And you can sit

Richard Flentge

have intermittent intermittent connection to the grid. And the grid can be on and off. You got it exactly. That's basically what I advocate. And that's really what conventional wisdom that's coming together as the solution, which is very similar to why waterworks? Yeah, you know?

Mike Stohler

Yeah. And that's worked. It's worked, you know, out in the Midwest for a long time, you have the water wills, it generates electricity.

Richard Flentge

But it's, it's, it's here, it's just not.

Mike Stohler

So what do you think five years from now? What do you think is gonna be?

Richard Flentge

You know, I don't know how far we'll get in five years, I'm surprised when I traveled around, and I had a model three, how difficult it was, if I got away from city areas to find charging. So I would say I'm not, I believe it's just going to be one of those. It's going to seed and seed and seed and then finally grow together. I bet five years from now, it is substantially move forward. Big only because Detroit and several automakers have a lot of car models starting to hit the hit hidden either laws. And that's going to pressure some more advancement in charging. So I guess it'll just keep growing. But now and adopted curve, and a lot of people talk about this, it goes along and it's sort of flat. And then it kind of takes a little bit. But when it hits the point that everybody wants to do it, it goes straight up. So yeah, and now the the other thing that Elon had alluded to was the lower price Tesla. When that no matter what, it's still hard to crack even fifth, it's hard for me I mean, but a lot of people cracking 50 $60,000 on a car versus 25,000. When it gets to a pragmatic point, you know, where are really adoptive frugal, they make the decision based on economics. When that low cost electric car comes out, that's probably when it's gonna, you're gonna see an uptick. And yeah, they've almost, and that probably is what's gonna fry the grid. So it'll be like, you'll plug in your car and the lights will go out, you know,

Mike Stohler

I know, well, they just can't, you know, the grid just can't handle everyone plugging in. You know, because everything's, everything's based on 60s 70s technology and, and, you know, even now it's like, okay, every house that was built before the 90s probably has to have a brand new electrical box. Yeah, Bigger. Bigger breakers talk

Richard Flentge

about technology. There's an ex Tesla employee. This arch Raul, that is developed a company called span, SP a n, and they have basically a smart electrical box. So they have an electrical box that will prioritize circuits with a microprocessor. And then it has internal relays. So say, you have your car charged up if you have a solar array. You can tell your electrical grid just to take all of the power out of the solar panels and put them straight into your house. Ah, car, or you can tell the left, you can tell the span smart panel, I only want to have these circuits on, I want to turn off everything else. All right. So there is, I think that's critical. And that's something we learned, you kind of have to be able to control your end user management of how you use electricity, you got to have to be able to turn certain things on and off. And you have to be able to relate to solar power, turn it on, and have it used for something very specific. So the technology is kind of it's it's creeping up. It's common, I'm enthused about it. Now, the span is several $1,000, you know, as much as well. So

Mike Stohler

you know, that's the thing is, to get the buy in, especially from someone like me, that's more analytical is, you know, the cost has to, it's like, you know, I'm not putting solar on my house, because it'll be paid off in 25 years, and I might be dead by then. And then no one wants to take over the lease. You know, it's almost a detriment to have it on. So, you know, there's gotta be other ways to sit there and say, it's like, okay, you do this. And it has to be something other than Well, you know, it's good for the planet. Well, how many millions of people just don't like that? Don't care? Because it's too expensive. You know, so something's got to happen.

Richard Flentge

Yeah, well, that that is, yeah, you're, you're now and and I worked, we had to off grid, or we had to solar arrays. And we basically tested off grid technology. That's what we did for years. And, you know, kind of the back of my mind, I'm like, I don't think the average guy is going to be doing this. But now here's the here's the flip on that bi directional charging. So and you saw, I don't know, if you saw that in California, they're trying to pass a bill, where bi directional charging is required to be installed on all electric vehicles? Well, if you have bi directional charging, it means you can go to your work. And if they have a solar grid, you don't have to mess with all the engineering of all that you plug in your car, you fill up your car, you simply drive home to your garage, and you plug it in to your smart electrical system. And it powers your house. So and I again, I have a kid in the book, and I would say the big solution is going to be the portable battery. I don't think people are going to

operate a micro powerplant. I just I don't see that. You're like, I'm in there. And I remember getting yelled at don't ever touch that switch don't flip nothing. You don't know what it is, you know? Yeah, I could see those.

Mike Stohler

Yeah, and, you know, I have people that have been on the podcast that they're advocates for more of a, you know, smaller nuclear fusion type of, you know, you know, instead of solar, and they're saying that, you know, nuclear is the way so it's just there's all these different things. Very quickly, before we leave, we'll talk about your book.

Richard Flentge

Okay. It is. It is written about how the portable battery is going to stop climate change and save planet Earth. I have put a lot into it. And I talk about the history of transportation energy. And then I go into gasoline, the leaded cars, and I do it somewhat in a humorous way in a kind way. And I am not a completely left wing, environmentalists and I'm not a completely you know, I try to stay in the middle with book, Missouri's kind of a very middle book, but I explain the advantages, the technology, the technology, I give very specific examples I talked about. So a product advances. If you're looking for really a complete picture of kind of where this this battery and the climate change and the future of solar, it sort of gives you those answers. And the name of the book is verities of an electric mule. And I really right now and just I miss selling it on my website,

Mike Stohler

and where can people find you?

Richard Flentge

I go to Richard fringy.com RI ch ARD fle and TG

Mike Stohler

so everybody yes Flynn G is there's a T in there f l e s And T G E, as Richard and you know, if you're interested, get his book. And it's probably interesting read about future renewable energy solutions and the concepts behind it. And, Richard, I appreciate you coming on today.

Richard Flentge

Blast, and

Mike Stohler

hopefully someone would get get something out of this and think yeah, you know,

Richard Flentge

you know, it's common. And I'm I'm kind of a bridge guy in the middle, I suppose. I think everybody better be paying attention to it because it is on the horizon. And whether we take advantage of it, probably our children Well, absolutely. To help the future out, we ought to do it.

Mike Stohler

Well, I love my Tesla car. And I liked I liked that it's very fast, and it has a lot of technology. But we'll see what the future you know, I've got the cyber truck on order one of these years, I'll probably get it.

Richard Flentge

That that was my signature show we did was the cyber truck debacle. Do you remember when they flew the? Well, the we had been running the show. And I'm telling you that event, they hadn't picked up the glass yet. And we filmed a humorous YouTube video on that got about 300,000 views. It was actually one of my one of my few feathers, I suppose at ybe. TV, I got the CO hosts that show we had. We've made fun and had had a big time with

Mike Stohler

that. So there you go. Yeah, we'll see. We'll see if that ever comes fruition.

Richard Flentge

They're driving it around. I'm telling you.

Mike Stohler

I want to drive it around to so what we'll see when I get Richard thing us. Thanks for tuning in to the richer geek podcast, where we're helping others find creative ways to build wealth, and financial freedom. For today's show notes, including all the links and resources from our show, and more information about our guests, visit us at www.therichergeek.com/podcast. And don't forget to jump over to Apple podcasts, Google Play Stitcher, or wherever you get your podcasts and hit the subscribe button. Share with others who could benefit from listening and leave a rating and review to get the podcast in front of your eyes. I appreciate you and thanks for listening