

Tony + Sam Ruben - August 22

So once again, we are high watts where our mission is create a reliable renewable and low cost energy with our car quantity box anywhere.

So why would we start to work on that project? So now we see rapid degrees in energy month goes by energy conduct industry, such as electric vehicle, data centers, better thousands, et cetera, and basic different reports.

by 2008, electric vehicles and data centers only will use my as much energy as 50 million home, which is equal one third of all homes in the United States right now.

So sorry for interrupting you.

@9:51 - Tony S

I clearly understand the problem because I recently made the internal research on these markets.

@9:57 - Alex Ivanenko (HyWatts)

yeah, the problem is big. Absolutely. I clearly understand that. Thanks. Okay. So the main statement. So it would cost our economy about \$200 million the United States.

the same story will be outside of the United States. If we will want to increase power consumption from that's energy.

So that is why we started Taiwan. And our first product is power plants and the bars, which is the produce is reliable, renewable and low cost energy anywhere.

And it works by combining solar generation. And now we'll break through hydrogen based energy storage technology. So let me briefly explain how it works based on the charging station example.

So during the day, solar panels generate power and directly supply to the charging stations. And you can say power is converted into hydrogen both sides stored in tanks on side.

And where we use hydrogen as an energy storage medium because hydrogen can store a lot of energy for a long time.

And when solar power is not available such as during the night or any days, the hydrogen is converted back to

electricity is applied to charges for multiple days, unlike battery-based systems. As a result, so once a game can deliver reliable, renewable, and low-cost energy, wherever it is needed.

And our go-to-market strategy is that we wanted to start out, we started from the charging station market, because our customers using our system can get up to 90% of compensation and subsidies and incentives, which is available in the market.

And even despite the value of our technologies on a station development, the second, as soon as we will cover a private product here, so we will move to a much attractive market for us, a data center, and of course, utility-scale storage.

But right now, they require us to have a high-priority level. So if you charge a state-of-market, use it to build with the data to identify the product first, before move to other market segments.

right now, before the commercialization stage, So we, our B2B model is the standard classic B2B with the sales because once again, lot of subsidies said, and the incentives available over the market.

But later, at commercialization stations, one of the products would have been centralized. So we moved to energy as the service business model, offering our customers to sign a purchase power agreement for 25 years of contract.

With no offer of cost and this fixed price back over an hour. This business model, but a classic gain for the business model for energy generation company.

[@12:35](#) - **Tony S**

Yup, so great.

[@12:36](#) - **Alex Ivanenko (HyWatts)**

And why are our customers choose high watts, right? compared to, especially for this specific market segment. Because we are, of course, much better on topics level with storage site.

We can be much attractive compared to like a cost per kilowatt hour installed. So we, of course, and the low price per kilowatt hour generation, right?

to, so. are the chargers. And of course, we are much better on comparison of footprint. And we are, I would say, environment agnostic.

It means that we cannot create our system because there's a high temperature of use of membrane technology, which is that we'll tell you in a second about that more in details.

But that's actually provide the opportunity to operate our system in any weather condition, hard, cold, etc. So that is why our customers see that the benefits and choose to work with us.

And what is actually our secret sauce works makes us so different, exactly. So right now, if you want to use hydrogen as an energy storage video, you have to use two components, an actual visor to produce hydrogen and fuel cell to come from hydrogen back to electricity.

So it means that you actually have to pay twice for similar devices. So that is why, and this is solution will be very expensive.

That is why we don't see implementation hydrogen on the market because of carbon, because of course.

[@13:59](#) - **Tony S**

So

[@14:00](#) - **Alex Ivanenko (HyWatts)**

In our team, we address that problem, cost of the system, cost of the energy storage, that is why we are found to make how to make reversible fuel cell, where we can do both of the chemical processes in one single unit.

So, simplifying, from one side, the cell works like an electrolyzer to produce hydrogen, and from the other side, same cell can occur in the fuel cell mode, to convert hydrogen back to electricity.

It means that by default, our system is too much cheaper, compared to standard system configuration. And of course, high watts is not the inventor of reversible fuel cell reaction.

The technology that exists on the market more than 20 years, but we found a way how to make that reversible chemical reaction in much more reliable and efficient way, because it's a crucial and novel discovery interactive problem, which is a help, which is a help us already to submit.

to part of the educational system architecture and that specific conduction part of the network. So, that's great. Let's now speak about our business development progress sample.

[@15:11](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

Yeah, so we've got significant traction on the commercial side with sub-noise value of over \$55 million representing roughly \$3 million in potential contract value upon successful completion.

Two of these have already been converted into paid feasibility studies representing anticipated income from about \$175,000. The first of these, Cal City Industrial Park, is for a heavy-duty trucking hub down in Southern California in the Mojave Desert, next to where they're going to be deploying the inland port of Long Beach.

So, they're developing a whole inland port there to take pressure on, goes to port. And then the second is with L-Charge, which is deploying, first off, works with Walmart as one of the major providers of EV charging solutions.

This project in particular will be for a mobile charging system for the Lake Tahoe area. here in California. And if pun completion, we'll help create an entree into Walmart and open up huge opportunities there.

Additionally, we just last week, signed another Y with Optima Energy, they're looking to deploy megawatt charging systems for heavy-duty trucks.

And we're already moving that towards a commercial feasibility study anticipating how that signed in the next week or two.

And then with ClearWave, we're going to be partnering to deploy our MVP, likely at the Holiday Inn here on the peninsula by the airport.

And that'll be a trailer-based system that Alex will talk about, and that's going to be supporting two level two chargers.

And then we also have an LOI with Mancin Airport in Southern England, which is being redeveloped into commercial hub of the region.

And that one's unique. It'll use wind power instead of solar, because it's Southern England and solar doesn't make a lot of sense there.

Additionally, we have some LOIs in the built environment space between microgrids, including with energy security solutions. in with mighty buildings for a 45 home off-grid community in Southern California that's likely gonna break ground in 2025.

And that for full transparency that L.O.I. signed when I was still an advisor, so it's not the self-dealing, it seems like it might be.

And then we also have an L.O.I.

[@17:18](#) - **Tony S**

with a flower group.

[@17:20](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

We do what we can. It's a sustainable developer operating in California and Latin America, and we're in conversation with them about a 40 home community as well.

Additionally, we've been having success on the non-dilutive funding side. We were a subcontractor and successfully completed a phase one SBIR grant in the spring for the department of defense for deployable system for the Marine Corps.

And in end of July, we were informed of, we're notified of an award of \$200,000 from the Department of Energy on a phase one SBIR grant to support development of the high temperature panel electrolyzer as well.

then we're waiting to hear on a number of other grants that we've applied for. and our strategy is to apply for one to one to two grants per month to ensure that we have a good pipeline of non-deluded funding and to the extent possible we use that non-deluded funding for RRD and leverage investor funding for commercialization and things we can't get grants for.

Next slide on.

[@18:16](#) - **Tony S**

Thank you.

[@18:18](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

Yeah, and then you've heard about me. You've heard about Alex. Our third co-founder is Demartries. His background is a PhD in combustion.

He spent a number of years in the turbine division at Pratt & Whitney before moving over to ASML, which is probably where ASML is a Dutch company that basically makes all the manufacturer equipment to make all the semiconductors.

Demart worked in the lead team working in their extreme UV department and his team actually holds the record for the fastest timeline from concept to deployment of a component in one of the ASML's 180 million dollar machines, having completed that cycle in less than two years.

And then he has a number of publications of patents including a number of patents, which are the reason we have to keep buying new phones.

So the next time you have to buy a new phone because it's quote unquote, slow, you can blame Deepmar because it's probably due to doing one of his patents.

And then obviously, in addition to his work with ASML in Pratt & he was a part of Alex's team at Highpoint.

So not only does he have extensive R&D deep tech experience, he has extensive experience specifically related to high-temperature fuel cells.

And so I understand what he takes to bring that commercialization as well.

[@19:31](#) - **Tony S**

Looks like you come with team.

[@19:37](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

And then we've got amazing advisors, including Dr. Palmanathosov from UC Irvine, who is a Gold Leader in Catalyst Development and serves as the Senior Advisor to the CEO of the Arches Hydrogen Hub, which is one of the seven major Department of Energy funded Hubs around the United States, as well as David Blickman out of Cal State, Angeles, who's a leading researcher in fuel cell technology.

and was a few years ago named as the top researcher in the entire Cal State system. And on the business side, Gerkimchi, who's experienced executive, having worked with Amazon and Microsoft, including leading Amazon's drone development.

And then most recently, we added Bill Lowenthal, who's been having worked for a number of years at Mitsubishi Electric and Plantronic, most recently served as the Chief Product Officer for Chargepoint.

And then we were proud to complete the Techstars Los Angeles Accelerator Program and Plug and Play Energy Innovation Program this past June.

And critically, we're not trying reinvent the wheel where we don't need to. And so we've got R&D agreements with BASF, who's a world's leading chemical company and also manufacturers of self-taxing membrane that we're utilizing in our system, as well as Sunbo Unitec, which is a global leader and a electrolyzer technology out of South Korea.

We also have a research agreement with UCI, University of California, Irvine. In fact, they're our partner on the... A DOE grant that we received, partnering with them on a few other grants, and we're active members of the Arches Hydrogen Hub as well as the natural consortium for long-duration energy storage out of Sandia National Laboratory here in the U.S.

[@21:14](#) - **Tony S**

Gotcha.

[@21:15](#) - **Alex Ivanenko (HyWatts)**

Okay. Sam, thank you very much. So I think all the information about the team and the progress. So I'm trying to adjust the like a few slides about where we are now in terms of product development.

So together with ClearWay, as Sam mentioned. So before we are assembled right now in DPE, so now we're lapping Sandia Gold.

So we expect to done the exercise by the end of November and deployed in December or early in 2025.

So that will be a fully-dependent, small version of Power Plant, view-based Power Plant in the box for level two charges.

We're going to deploy here in San Francisco, Bay Area. And this is sort of part of our lab, which is once again combined solar generation and different types of projects.

technologies to demonstrate the capability of the system and technologies in general and of course capabilities of the team that we will be able to do that.

And of course it's a little bit sort of test the bench, test the app for us to validate all the technologies we are developing.

So now crucial that we have a few parallel development tracks so itself but I have a few sandwiches that we are also working on.

So we started assembly that's together with BSSF and UTI. And so we started to assemble our first stack. So with the single-cell validation will be in November and we expect to have five kilowatts stack system already in January 2025 and of course those will be tested in real condition in our MVP.

And in the third track which is actually unlocks their reversible fuel cell system development. it's an HDPM electrolyzer where we'll do.

our conductive polymer, which as I mentioned earlier, so that program was supported by the Department of Energy and the Department of is a good university of California, either either way.

So right now it's more about the paper work, but the small testing system like a proposed level is actually already done, but there is like a redo this exercise.

And we expect to meet the program in March 2025. of course, I meet additional grants program based on our strategies that are known to the Department grants program for development of the system.

And the last slide, so it's just because I show you like a smaller version and et cetera, but that product is which we are targeting to deploy always California's eating natural part, so it's a 12-minute walk, so California's eating natural part because they charge your car for making you do drugs and cars.

So it's a foreign job. So fast DC charging stations, right? So it's like a 12-minute walk. power level output and the 150 megawatt hour storage.

So this picture you may see later in the rest of the deployment, but this is actually the actual size of the system for our marketing segment.

So Tony, as you may see, HiWask has right technology, right traction already, and right team superstars, right? So which is a kind of energy of hydrogen to meet in one of the financial economic industries.

ACTION ITEM: Discuss biggest challenges in more detail to better understand risks, opportunities, and how DVC fund and LPs can provide support beyond financial investment - [WATCH](#)

So once again, thank you very much for your attention. Now we will be happy to ask any questions.

[@24:32](#) - **Tony S**

Yeah, thank you, sir. That was amazing, Peach. You guys are a really good job. So I have a few questions.

And the first one is, what is the biggest challenge for you personally and for your company right now?

[@24:55](#) - **Alex Ivanenko (HyWatts)**

Sorry, I didn't get a full question.

[@24:57](#) - **Tony S**

Sorry, can you repeat this? What what is the the biggest challenge for you personally and for your company.

[@25:04](#) - **Alex Ivanenko (HyWatts)**

Right. I understand. Thank you. So we have to divide it to like, there are different risk and different challenges, right?

So if I'm talking about technology development, some of the stuff that we went through the fundamental validation, right? So now we move to like the genetic station.

Of course, engineering is risk, right? So because it depends on resources available, funding available and et cetera. So we may slow down, right in general.

But again, because of team, which is already done that before, a similar project. So of course, we do believe that we'll be able to do that.

So, as we understand that with Mattress, what we have to integrate and et cetera, actually, one of that I want to approach is to do, as some said, we're not doing that alone.

So we rely on commercial available technologies like its book or building valves upon it. So that is why we think it's a good strategy to the risk, the technology development.

The second risk is about market, because we've heard a lot about solar, renewable energy market, and et cetera, so everything will grow, and so on, and it might be situation when the market risk, I and for instance, all plants will be executed as plant, right?

but this is exactly what we do not can't That is why we, to mitigate that for this, we are building multiple go-to-market strategy approach, right?

So, because in multiple product performance, if you sell an electrolyzer, find that a reversible viewsell, so that is why we think that we try to reverse ourselves.

So for deeper market segments, if something goes wrong, it's our main target at the moment. So, and the third risk of course is, as you said, personal, et cetera, right?

So, I would say it's a human resources. issues might be better because again, so we right now kind of good start, so attract the best resources, best people which is available on the market, but during the growth stage, so of course it will be important to attract more people in like superstar people to manage the company in the future and etc.

But again, based on the participation strategy, we went through like a few scenarios program, so we actively explored it right now, the effort normally in investor, but also in the different, like a different network and the professional expert.

So where is that roots? But at the same time, we understand what is our global mitigation plan.

[@27:43](#) - **Tony S**

Yep, I got you. Who will be the next player?

[@27:48](#) - **Alex Ivanenko (HyWatts)**

The next player, so it's more engineers, because we more focused, again, our focus technology as soon as possible, right?

So that is why we put all our resources on engineering course. So next, we will be the engineers and chemists who will work on this, specifically on that conducting polymer layer.

[@28:13](#) - **Tony S**

Gotcha, what kind of engineers are you looking for?

[@28:16](#) - **Alex Ivanenko (HyWatts)**

So it's mechanical engineers, so it's designers who may build like architectural the system, so bipolar design, a few self-tech design and et cetera, but of course, my previous engineers will go on for me with that right point, so they are staying in line to join me.

Okay, gotcha. public announcement that, hey guys, a basically fun thing, of course, right, for political work, hm?

ACTION ITEM: Discuss fundraising goals, timeline, and strategy in more detail to determine fit for investment - [WATCH](#)

[@28:46](#) - **Tony S**

Gotcha, so let's talk about zero fundraising goes.

[@28:52](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

Yeah, so we've been raising a million focusing on a million-dollar pre-seed, primarily focused on angel syndicates and smaller Great venture funds of that.

SCREEN SHARING: Alex started screen sharing - [WATCH](#)

We've been doing that on safe with a \$12 million post money cap. And so of that, we've got 800,000 committed and or received.

And so I have another 200,000 left there. That said, we're in extended conversation with a few syndicates and smaller VCs who are in, when we're going through diligence.

And so given that strong interest we're receiving, we're likely going to do a bridge round for another million. That'll likely be at \$15 million by post money cap, though, to reflect the conversion of LOIs into paid feasibility studies and the commercial traction.

However, for larger checks in the 200,000 or more range, we're definitely open to discussing a discount of \$15 million so that's more or less the same as the current 12.

So currently, we've got about 200,000 on this first million still available though.

[@30:00](#) - **Tony S**

great guys looks like you're doing great job thank you thank you although I saw this you're the should I say 50 million so should I send the same position you want to get the form now yeah guys I really I really do understand what you're doing and I understand how big is problem and about energy demand and that stuff so I'm super excited about your team your product and your approach is looks very promising so process wise I need to set up a second call I hope we can do it really shortly but all my partners in the Jordan man on the next week so I hope we can jump on the second call

[@31:02](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

But you can you can help us deploy our system for Burning Man next year if you get to join because that's something we've already been looking at because especially our early systems being trailer based would make a lot of sense to deploy.

[@31:15](#) - **Tony S**

It's a great idea.

[@31:16](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

So if your partners are first. If you guys come and we can lend you the MVP for a week.

[@31:25](#) - **Tony S**

It's a great idea.

[@31:26](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

It's my kill me for saying that but.

[@31:29](#) - **Tony S**

No, I'm not involved.

[@31:31](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

Nobody. But if you guys invest, well, we would love to make that happen.

[@31:36](#) - **Tony S**

Yeah. I hope so. So I think it's all my questions. have a few. How big is your team and what about your build rate right now?

[@31:50](#) - **Alex Ivanenko (HyWatts)**

So our two right now is eight. So, think everybody. So our build rate is relatively small because founders. We are.

are on minimum wage, so it means that our expenses is about 40 k a month, so all together.

[@32:10](#) - **Tony S**

Okay, so what will be your runway after this round?

[@32:17](#) - **Alex Ivanenko (HyWatts)**

So our runway depends on which is the amount of workloads of course, so our initial \$1 will give us about 10 to 12 months of operation, and the cost additional \$1 million will lead to four hour price round, so it will give us additional expenses.

again, of course, the additional \$1 million will accelerate the development, because all money will be invested into engineering team and et cetera.

That's only the problem we see right now is to attract necessary sources that have a of resources.

[@33:01](#) - **Tony S**

Do you guys want to talk with someone from the CVC fund or do you need an interest or how we can help you?

[@33:14](#) - **Alex Ivanenko (HyWatts)**

Good question, don't know, of course we also talk again looking for an investor who know just put money and forget about everything, so we at the stage we are trying to sample and attract investors who are deeply involved in our progress, so in the company, not just in terms of management, but to help us to get additional network and etc, that we are exploring right now, but we can do it with them and so many, right, so this is what we would expect from investors not only funding, right, more cash, but also resources we can use to achieve all the goals.

And once again, we need to I know that is the need of the man a few times before, but yeah, so and I think he where he goes into the different communities, and of course that won't go possible.

And again, you said that you have a lot of LPs when you have to dive into what's how the exactly they can help us.

Oh, they do. You don't think that you will get money and it will disappear.

[@34:31](#) - **Tony S**

No, no.

[@34:32](#) - **Alex Ivanenko (HyWatts)**

It's you will tie a power power. It's gonna go my question. He's not a these guy to do. I can't.

I'm starting to work for you.

[@34:42](#) - **Tony S**

I feel if we invest all our LPs to work for you. So also, and furthermore, we will share a care with them, so they help you and be better.

[@35:00](#) - **Alex Ivanenko (HyWatts)**

It means that it sounds like we will be 98 in the employee company, right?

[@35:05](#) - **Tony S**

So, after the UG, I'm coming back up. Yeah, promise, I can't be 68, something like that.

[@35:12](#) - **Alex Ivanenko (HyWatts)**

Yeah, but they're doing a lot for that.

[@35:15](#) - **Tony S**

So, we build our internal products. We work with us, so when you send to us your email base and you have any asking, we have our AI engine who explained what us do have and who from our community in total most expertise and to most companies where they work, who will perfect match and how they help you.

ACTION ITEM: Schedule follow up call within next week to continue due diligence and investment discussions - [WATCH](#)

[@35:41](#) - **Alex Ivanenko (HyWatts)**

Yeah, so, let's keep in touch.

[@35:47](#) - **Tony S**

I hope for small allocation that's for us and I hope you're learning because on the next week we can set up a skunk call.

[@35:58](#) - **Alex Ivanenko (HyWatts)**

Okay, I will send you, I will send you, After the call, will send you the full up, because we used our annual take care, so the notes do.

And I don't really think I send you our notion of patient access, right?

[@36:11](#) - **Tony S**

Yeah, if you have in the meantime, if you have any other requests, information, so let me know because we can't buy some of them, but we need to understand what exactly you're looking for, right?

[@36:22](#) - **Alex Ivanenko (HyWatts)**

So it depends on that. we will get into job with the technical, financial conversations of everything you wanted to clarify.

[@36:28](#) - **Tony S**

Yeah, I think I have all the information for the stage.

[@36:33](#) - **Alex Ivanenko (HyWatts)**

So if you have any other questions, you feel free to ask.

[@36:38](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

Not at this moment.

[@36:40](#) - **Alex Ivanenko (HyWatts)**

So I think we can pull all the media down. Tony, Sam, again, thank you very much for your time today.

[@36:47](#) - **Sam Ruben (he/him) - HyWatts, Inc.**

So I hope we will see you in great media, Tony, and safe travels to