

**MEG:** Because one reason that I've been able to do so many great things and have so many amazing opportunities is that I had a great team around me. And, and to walk into the team and be a servant leader, and ask them, you know, what do I need to do for you today, because I need you working your ass off.

**CHRIS:** Welcome to *No Turning Back*, a McChrystal Group podcast hosted by General Stan McChrystal, and me, Chris Fussell. Our goal here is simple: to have serious conversations with serious leaders, so we can learn from the best, and navigate these complex times together. Thanks for joining us.

Over the next several weeks, Stan and I will be embarking on a new mini-series, called “Slow is Smooth, Smooth is Fast.” The title comes from a concept in special operations, where operators move more methodically and slowly to, in the end, make fewer mistakes. I learned early on in the SEAL teams that the adrenaline and push during moments of crisis can create an unnecessary level of speed, leading to unnecessary errors and ultimately causing critical time.

In this series, we're excited to hear how industry leaders are managing their pace as COVID-19 continues to challenge operations. We're curious to hear how they are tackling unpredictability, being intentional in their leadership, and adapting to crises as they unfold.

**ANNA:** As a part of the “Slow is Smooth, Smooth is Fast” series of *No Turning Back*, Stan and Chris were excited to speak with Meg Gentle, the Executive Director of HIF USA. Meg has had an impressive 25-year career in the energy industry. A former oil & gas executive, she recently left the business to focus on decarbonization, with goals to return our planet to a CO2 homeostasis.

In this discussion, Stan and Chris ask Meg about the future of the energy sector: what leadership will look like, and *how* and *when* we should act during the ongoing challenge of climate change. It's a timely, necessary conversation, and think you'll learn something useful.

Thank you to Meg and her team for making the time. Now, over to Stan.

**STAN:** Hey Meg, thanks so much for joining us today. You're really generous with your time. We've been excited to have you on because one, because it's you, and two, because nothing is more topical than energy. You know, I'm watching Ukraine and Nord Stream 2 and all those geopolitical energy questions, but then energy in the United States. And then the far larger issue about climate change. Because I've got three granddaughters and I see them every day. And I know if we don't do something, they are going to live with what we didn't do.

So, I'd like to start with, you know, you've got this fascinating background in oil and gas, so you've got deep expertise in the part of the economy that, that provides the essential energy that moved our nation for so long. But now, you're focused on climate change. Not that you haven't always paid attention, but now you're hyper-focused on it.

So, I'm going to ask you: talk about what you think the risk is. And do you think we've hit a tipping point? Do you think the average person now views it differently than they might have a year or two ago?

**MEG:** Well, first San and Chris, thank you for having me here on *No Turning Back*. It's really such an important place to share innovative ideas and inspire, you know, current and future leaders. So, I'm really grateful to be here.

I think what you say is absolutely true. The risk of climate changes is very high. We can see, you know, complete change to cities in, in definitely along coastal areas, because of rising water, where we're already seeing, you know, weather conditions that were really ill prepared for coming into communities everywhere. It's, it's affecting everyone.

And there's great debate over what is the cause of climate change and how long is it going to take to actually, you know, impact us in serious ways. But there's, there's really no longer any debate that, that it's happening. It's something that we have to pay attention to. And it's something that we have to protect the earth for, for, you know, for future generations. And I kind of think about: how was the earth created as a natural recycling system, right? For carbon dioxide, with enough plants and ocean to absorb carbon dioxide that goes into the air from natural decay and volcanoes erupting, and different kinds of wastes that all got reabsorbed and, and recycled.

And really just over the last century, we have been increasing the amount of carbon dioxide and other greenhouse gas emissions. And when we think of it like a greenhouse, it's exactly what's happening. Those gases are staying in atmosphere and just like what you see in a greenhouse, it is making the earth warmer and we definitely have to do something about it. There's no disputing the data. The CO2 emissions are increasing. And we can have an impact on that.

**CHRIS:** Meg, can we spend some time... we'll ask a few different questions here, but just in the, in the leadership space inside of, of oil and gas, energy sector broadly. So the first one, I mean, building on your point there around how do we start to have this impact, how do you think the leadership model, the approach leaders take, inside of the energy sector is going to have to change. Where do you see it already shifting? When you're an example of that, obviously in the decisions you've made, where you want to focus professionally moving forward. Any thoughts there on, on the traditional leadership mindset and how it needs to shift?

**MEG:** Well, I think the good news, Chris, is that the energy sector, you know, vast right across every country, there is energy. And energy sector is already good at doing a number of things. Solving really complicated problems, you know, never saw a challenge that the energy sector didn't tackle with new technology and innovation that brought the cost down. Bringing big, big financing, so very large balance sheets and, and driving teams, and in fact, a concept that I learned from both of you, a team of teams, driving teams on a multinational scale to solve these problems.

So, this is the good news about the energy sector. It's already an army of 18 million people that has, you know, the knowledge of energy systems and, and the, and the incentive to make changes that are always going to drive, you know, safety and lower costs.

So, there's really only, I think, three important questions that energy leaders need to face today. First, you know, how do we involve energy systems that balance four things: security of supply and reliability, safety in energy systems, storage of energy, and emissions? We have to balance those four things and we can't, we don't have any single energy source that is perfect on all four of them. So, we have to have a system of balance that takes energy from different sources and finds optimal solutions.

The second key question I think is: how do we create uses for carbon, carbon dioxide, that eventually become profitable businesses? We have to grow the carbon recycling system. And one way of doing is planting more trees, but we have to find more ways of doing it. And we can recycle CO2 that's already in the atmosphere, and we can use CO2 for lots of solid form things already that's being used today. And building materials, cement, carbon fiber, carbon black, you know, what are more ways that we can use carbon so that we expand the recycling system?

And then third critical question I think is how do we work together with public policymakers to make sure we are incentivizing the right investments to, you know, accomplish those two major questions? And that's how I think we'll see, you know, leaders in the energy sector changing as, as they are going to be the major drivers of the energy transition.

**CHRIS:** Yeah. That's a really thoughtful answer there. You know, any, what you just laid out is like pretty high-level systems thinking, not surprisingly. As you were talking, I'm just sort of drawing a parallel to the world I grew up inside the special operations community, which has, you know say a 70-year history in the modern era.

Each generation, you know, focused sort of certain part of the personality traits around, you know, mission focuses, et cetera, are universal, but there's been evolutions every few generations. When I joined, you weren't asked to be a systems thinker you were asked to be, to be able to execute very well. Right. And then the world changed for the last 20 years, and you ineffective frontline person had to think about their role inside of an interconnected global system. Ours was terrorism. Yours is totally different, but I'm wondering, you know, what you just laid out, if you build a time machine and went back and talked to like... you know, multiple generations ago, that person probably I'm guessing, sort of scratch their head and go that's somebody else's problem. We're just going to go find, find the oil. Maybe I'm oversimplifying it. If there's something there, like, is there a downstream or early-stage impact you're trying to have on people coming into the energy, energy, energy sector? The people entering special operations are better smarter, faster, and think differently than, than I did, when I joined 20 some odd years ago. And I'm wondering if there's efforts early on to identify those right personalities and pull them into the space.

**MEG:** I think you're absolutely right about the, the change from people who are highly, highly specialized for their entire career, to people that get like broad training early on so that they can be flexible.

So, that flexibility and resiliency is, is so critical now, as we try to repurpose people very, very quickly. So, you know, a petroleum engineer that was only focused on, like, downhole risks in producing oil and gas out of the well, now finds himself or herself facing, you know, questions of, well, how do you control emissions coming out of that well? That used to be somebody else's problem now as becoming integrated in oil and gas production. So, you know, that's just one example of how existing oil and gas companies are going to bring those like energy transition skills into their existing workforce.

**STAN:** Yeah. Hey, that that's great. But it's important I do a clarification here first. Chris mentioned that the people coming in special operations after him were better. Well, I came in a generation before Chris, and we were also better and smarter than Chris's generation.

**MEG:** I don't know anyone better and smarter than Chris.

**STAN:** Now I'm going to ask a question that pulls on where you've been going here, but it, but it may be a little bit more difficult for us to get our, our minds around. The question is the generation that has been providing energy, and I'm going to talk about all carbon, you know, oil and gas and coal, that was a generation that lasted 150 years that literally powered the world. The question is: will they be the energy generation of the future? Will they transition, or in fact, will that wither and die and a new separate generation of energy people, completely unrelated, that, that don't have that, that pedigree and, and you could argue in some cases, the culture. How do you, how do you see it going?

**MEG:** I mean, without a doubt, I think that they will transition and we'll have of course, new, new people, people that graduate from college and go straight into a renewable energy. That they'll be new people, but the traditional energy companies are transitioning in their strategic thinking, in their hiring, in their training, in the opportunities that they're giving to, you know, their folks. And like I said, there's, there's already 18 million people working in the energy sector today. And they already have, you know, knowledge of energy systems and, and that like knowledge of how an energy system works, has to be present to make the transition to new technologies and bring those new technologies into, for example, a power generation grid that has to have reliable power, especially in the cold weather, you know, going to people's homes, right, you have to have existing energy professionals that are going to bring new technology into that system. So, without a doubt the existing companies are going to transition and in fact, they have to drive the transition because they have big, big balance sheets. They have a safety culture that's already, you know, prevalent among everybody in the organization.

And, and there's a trust, actually among the communities that, okay, if, if for example, you know, Exxon Mobil is on the project, that means, I know it's going to be well run. It's going to be safe. It's going to engage the community. So, you know, even people who are, you know, against oil

and gas, I think there are so many skills within the energy sector today that we're going to apply to, to make that transition and find better ways of doing everything.

**STAN:** That's great. Let me ask you about natural resources, because many people don't understand, but World War II was essentially won using American oil from the continental United States. And of course, then it's become since then oil around the world to an even greater degree than before and other things.

But it seems to me with the rise of technology, the question is: will natural resources be as big a component or will it be technological expertise? Because theoretically, almost every country has wind and, and sun and whatnot and has some capacity to use new innovative technologies. But how much do you think geographic location and resources is going to be a factor and how much won't it be?

**MEG:** Well today, we have to remember that 85% of the world's energy is supported by fossil fuels. 85%. And 15% is coming from renewables and nuclear, essentially. So, to make a transition to zero fossil fuels, we have a long, long way to go. And it's a very important part of our economy. And it's a very flexible source of energy, right? It's easy to store it. It can be delivered safely. It doesn't have to be under pressure. It, you know, it's pretty reliable. It can sit in your garage while you're not using it and it doesn't evaporate. So, it's an important part of, of modern... So, you know, the question is, okay, how are we actually improving and changing?

And maybe I'll talk for a minute about what we're doing at HIF. So, today we have an enormous amount of infrastructure that ships, planes, airplanes, that are using fossil fuels to move around the earth and transport, everything that we need to transport. And that infrastructure, even if we just take cars, we're going to be driving these cars for another 20 years. The three of us maybe, won't be, we may have an electric vehicle. We have a new car, but our car is going to get sold to someone else and sold again and again and again, it's still going to be on the road for 20... So what can we do to decarbonize that, that part of the sector while we are having wide-scale electrification of other, you know, new infrastructure?

And, and so this is what we're trying to do at HIF: is create an electric city-based fuel and e-fuel. So based on renewable electricity, bring renewables in, but bring them in, in a way that we can use existing infrastructure. So, develop a liquid fuel that's based on renewable electricity that you can put in your car today without making any changes. And the way we're doing that we will generate electricity from wind or solar, we'll separate hydrogen from water, and produce hydrogen, and we'll capture carbon dioxide from the air and recombine it with the hydrogen. So now you have hydrocarbon, but it came from CO<sub>2</sub> that was already in the atmosphere. It didn't come from fossil fuel, and we allow the fossil fuel to stay in the ground.

And you have gasoline that's chemically identical to gasoline that everyone puts in their car today. And that is a carbon neutral fuel, even though it will reemit a carbon dioxide. It's the same CO<sub>2</sub> that was in the air already. So now what have we done? We have expanded the CO<sub>2</sub> recycling system, right? And we're hoping the earth kind of returned to the way it was designed,

used the CO2 that's already in the environment, but still allow existing infrastructure to decarbonize.

You know, so that's just one way. And I think I'm a perfect example. I spent 25 years in, in oil and gas, and actually we, we did a lot of decarbonization by making the US the largest exporter of liquified natural gas that can displace coal for power generation. That reduces CO2 emissions by about 1 billion tons a year of CO2, just those exports from the US alone. So, you know, there's another example and we have to follow multiple paths to decarbonization.

**STAN:** Wow. You, you remember, you're talking to a SEAL and infantryman We didn't get any of it.

**MEG:** Do I need to start over then? There was a hydrogen, there's a carbon. They go together and they make energy and you can put it in your car.

**STAN:** What I want to do though, is it puts you on the spot a little bit in a very practical way. How soon is that stuff coming? You know, how quickly will we see changes in our daily life? And, and that kind of thing be available.

**MEG:** This year, actually we have a demonstration facility under construction today in Patagonia in Southern Chile. You would imagine it's very, very windy there. So, there's a tremendous wind resources that's not being used. And so, we're building, you know, the plant that I described there in, in Patagonia, and it will be producing gasoline by the middle of this year. And Porsche is buying the fuel from that plant to decarbonize vehicles in Europe.

**STAN:** Wow.

**CHRIS:** That's, that's, that's amazing. Is there, we don't get too deep in the tech, but are there other, like, post modifications that need to be made? You know, if you want to do that to my Toyota? Do we have to do something to it?

**MEG:** You don't have to do anything to it. It goes right into your Toyota.

**CHRIS:** Amazing. So what other, just the tech sector broadly, you're, you're one of the most naturally optimistic people that I know. And my sense is, you think we're going to, you know, we got ourselves into this mess. We're going to get ourselves out of it. Can you forecast out, and we have kids around the same age, right? When they're, when they're our age, or their kids are our age, what is, what is the energy space going to look like?

I mean, what we do right now, isn't that much different than like with my 80-year-old mom was a kid, right. We take stuff out of the ground, we burn it, and we move around. But it seems like we're on the edge of this massive step function, how, how much different it's going to be moving forward. Can you paint a picture of what you think that that ecosystem will look like? And the other technologies that might be involved in getting us there?

**MEG:** I think when our children are our age they'll, we'll still be using oil and gas. The oil and gas production itself will be a lot cleaner, because energy companies will figure out ways to reduce CO2 emissions just from producing the energy. So, so the, that will be a lot cleaner. We'll have higher percentage of energy supply coming from renewables and renewables will be cheaper. So, all the subsidies that were in place over the last couple of decades won't really be needed anymore to keep renewables competitive.

So that is a public policy success, right? We created the renewable industry. And we got it to profitability. And so, you know, it's competitive against oil and gas, head-to-head. And, and so, the renewable sector will be a larger percentage of the energy mix. And then third big piece is we will have cracked the code on capturing carbon, just direct air capture directly from the atmosphere. And we will have put in place public policy again, that creates this de-carbonization industry, just like the renewables industry was created with public policy and, and we'll be able to capture carbon dioxide from the air and we'll use it for lots of things that I can't even imagine today.

So, we'll have recycling systems like, like the one that HIF has built. We'll have, you know, carbon fiber that reduces, I would love to see the cost of my bicycle go way down because the energy sector figured out how to make CO2 really cheap. And now I have carbon fiber bicycle for, you know, \$500 instead of \$3000. And so, you know, they'll be uses for carbon that are helping to balance out the oil and gas that is still part of the sector.

**CHRIS:** Any views on down at the individual level, we're all more and more surrounded with, you know, the app on our phone that tells us everything about our vehicle, our nest system in our house, so we're, we're sort of personally integrating into our energy ecosystem. We have a better sense of consumption. Do you think that the, the individual's awareness, and sort of tech integration with that system is an important part of the solution, or is that going to be, is that just sort of a lagging underneath the big system stuff that you're, you're talking about?

**MEG:** Well, no, I think it's important for energy efficiency, right? And so, there are a number of like existing technologies that are just gonna keep getting better, more efficient and lower cost. So, you know, how we use energy, can we be more energy efficient? Can we, each on an individual basis use less energy? And I think that will be happening because, you know, homes are more efficient. They've got smarter everything, more integrated, because thermostats allow people to make choices about like how many degrees they're making their house, because they know how much... so that just energy efficiency of use. I think the other big place where there'll be a migration is on the cost of storing energy and the efficiency of storing energy.

So, you know, already we can see how many miles does an electric vehicle go before you have to charge it again. I know the early adopter versions, you couldn't drive from Houston to Austin without having to charge your car. You know, now I think you can, on the new generation, so that battery storage, batteries have to get better and better and better at storing energy so that we have more reliability from renewables. So those are two kind of examples where, where you think of, okay, there are existing technologies, they work, but they've got to be better and a lot more efficient.

**STAN:** I want to follow up on that idea because you know, you get my imagination going. The first part of my military career was focused, the military was, on securing oil supplies from the Middle East, and we thought that oil was running out until we were all going to fight over this scarcity. And now when I look at the different suite of potential energy sources, while they won't be free, they will get better and better potentially driving the cost of energy, lower and lower, almost like information technology has allowed distribution of information to drive close to zero the cost. So, I guess the question is two-part: do you think we'll get to the point where the overall cost of energy, whether it's measured in electricity, gets so low that we start doing all kinds of things we don't practically do much now, like desalinization to, to allow more airable land, things like that. Do you think, you know, have roads embedded with heaters so that when it snows, it automatically melts the ice, things like that. Do you think that kind of future is seeable?

**MEG:** I think it seeable, Stan, but I think we're a long way from that. Because we have actually today increasing costs of energy and bringing these new technologies in are going to, you know, increase the cost. There is a cost on being cleaner and cleaner and, and the it's so encouraging that definitely, I would say OACD is willing to pay the cost of, of improving, you know, climate change and making energy cleaner, but it is going to be a cost, I think for, you know, call it till our children are our age going back to, to Chris's analogy. But I think your very first question was, are we at a tipping point? And we're at a tipping point for people being committed to making NRG systems better for climate better for future generations. And, and that's, what's going to be so critical to driving down those costs.

So, do we get to where every road in America can be driven with heaters? I would love that, especially coming from Texas, we don't really know how to drive on icy roads, but I think we're a long way from energy being that cheap. I will also say that the probably best thing that the United States did, to maybe reduce the risk of energy concentration coming out of the Middle East is that we allowed innovation and energy production, and in one particular field called the Permian Basin. We became the largest export or not only of natural gas, but also of oil.

And, and that changed the energy balance of power across the entire world. And we have to keep doing that as a nation, incentivizing new technology and new energy production to happen here.

**CHRIS:** Meg, what happens with the cost over time. Is it like other big systems like technology broadly, right? It's easy to complain about the \$900 new iPhone and it's so expensive, but if you really do the math on all the things you don't have to have in your life anymore, it it's sort of, it goes through this leveling out. Right? I don't have a camera. I don't have three different audio things around my house. Right. It's all compacted to one expensive device, but relative to all the other things you don't have in our life, anymore. Is energy going to go through something like that? Like, as you said, when our kids, our age will, other things will sort of fall out and the price will sort of, relevel?

**Meg:** Well, my camera's way better than my iPhone camera. So I still have a camera, but yes, I think that we will consume less energy on a per capita basis and different parts of the world are going through different stages of development. So, when we think about, you know, energy



inequality and energy poverty, there are big parts of the, of the globe that would still like to become as developed and have the standard of living that we have today.

And they don't necessarily have the ability to afford the absolutely latest technology. And so, we're going to have to help them. We're going to have to help them have access to cheap energy, which we balance with other cleaning ways. And we're going to have to help them be energy efficient from the start. And, and we're going to have different communities going through different stages.

**STAN:** Yeah. Sometimes we forget energy. Take it for granted. In the fall of 2003, I went with part of our command or the military operation to a very remote part of Afghanistan up in the mountains place ... And it was back a thousand years, except they had this string of electrical lights, which connected several places. What they'd done is they'd gone and bought a little generator that hooked to a, a stream, and they produced very rudimentary hydro power, and it was amazing the difference it made to them. And you just sort of step back and you're reminded how critical it is to us.

Meg, you've shared incredible insights and wisdom here. How'd you get that? So, really this is my question on your journey to get there. Because you went to James Madison University and I'm not sure whether you said I'm going to get in the oil and gas industry. I'm going to develop all this expertise and lead people, or whether it was more happenstance. Will you take us through it and talk about it?

**MEG:** I would love to tell you that I had a big planned career and executed everything on my plan. And as you would imagine, that just wouldn't be true. And I think that every time I, I thought I was doing a little bit of planning, you know, God interrupted that and gave me a challenge that was even bigger. And so it was really just a series of meeting those challenges and, and taking new opportunities that led me to where I am today.

And if we start, you know, even all the way back to graduating from James Madison University, with a degree in economics, I wanted to make a difference in, you know, international communities. And I found my first job by answering a two-line ad in the *Washington Post*. And I was, you know, eager as undergraduates are, and my new boss asked me to deliver a hundred MMBtu of gas to a utility in Kansas. And I think, well, let's see, where is Kansas? What is an MMBtu? And I thought we were talking about gasoline and I quickly learned natural gas is a completely different thing.

So that was my start in the energy business and a year and a half later, I moved to Houston to take a job as an analyst at an oil and gas company ... and we worked a lot of international projects, so Central and South America, Turkey Turkmenistan, all that corridor, bringing energy through there, Argentina, Alaska, even though it's not international, sometimes it's a different country for our big energy development. And, and then when I went to Rice University for my MBA, a teammate of mine recruited me to a company called Cheniere Energy. And that's really where probably my passion for de-carbonization started because Cheniere Energy developed big, big projects, big infrastructure, roughly \$30 billion of construction dollars, to export natural gas. And, and that really created a, what is the LNG, liquified natural gas, export industry today.

And the US today is now the largest exporter of LNG. And like we were talking about earlier, it decarbonizes power systems all over the world because it allows them to get off of coal fire power generation and reduce emissions by about 50%.

So, I got a phone call from former partners of mine in Chile and they explained to me, you know, what they were doing. And I, I had been thinking on this big theme, you know, how do we expand the carbon recycling system of the earth? And when I came home and explained to my husband, they're going to use wind power and make hydrogen and capture CO2 and make gasoline, he's kind of like you, like, I'm not an energy person. What did you just say to me? And so, he said, oh, it's so it's like a CO2 recycling system? And so you would imagine making the change to, to join them and, and work on these plants in Chile and expand the plan to the US and, and even to Australia, was, was kind of a no brainer. It's ...okay, how do we be a part of the energy sector that is transitioning? This is the way. And so, we have a \$50 billion construction dollar plan for 12 different plants in Chile, North America, and Australia. And we'll be producing gasoline and, and methanol, which is a fuel use in the shipping industry and eventually jet fuel.

And we'll be starting that, you know, later this year and ramping up to big volumes by about 2025, 2026. And though that gasoline should be able to decarbonize over 4 million cars. And 4 million cars, okay, I mean, that is the, I think roughly the size of the cars on the road in the DC, Virginia, Maryland, Metro area. So, with \$50 billion, we can do that. It would take, I think, over \$300 billion to overturn that entire fleet into electric vehicles. So that kind of puts into perspective a little bit. You know, are we being efficient with the investment? How can we incentivize the capture of carbon and the beneficial use of carbon with public policy?

These are the critical questions. How do we change?

**CHRIS:** Meg, it's fascinating, very honest sort of description of your career. An aside I'm reminded when I met Admiral Mike Mullen when he was the Chairman of the Joint Staff. And he was, he would tell young officers the story about when he was at the junior officer, there's this buoy in the harbor in Norfolk, Virginia, where all the ships are on the east coast.

And he had hit the booty with his ship when he was like a young Lieutenant, which is like career ending and he'd survived it, and he would always finish with, so any one of you could be the Chairman of Joint Staff someone, just keep working hard. So. I hope that your, your, your honesty about, you know, being really unsure about the space when you entered is motivational to younger folks in the field that are mapping their course.

A question around sort of back to systems level stuff, because what you are not diving into there in the description of your career, but I've seen it in the way you operate firsthand, and similar to the military, I didn't, I didn't serve at the strategic level as a senior officer, but I observed it close to Stan McChrystal, another senior leaders. And the best ones learned throughout their career, how to navigate multiple spaces. You have to understand not, you have to understand the military stuff for a long time, and then you have to understand how the Pentagon works as a system, how it interacts with Capitol Hill, how ally nations think and function and interact with

our big systems, how the media plays a part in all of that, all of these different components that come together.

And I've seen you in leadership roles, navigate those spaces from international relations to, Capitol Hill, how things work there, investors, and obviously deep subject matter expertise. And I'm leaving out many different, different spaces there. I'm curious, where... was that just an organic evolution, where there points in your career, which you realized observed others and said, I have to be a sort of a T-shaped leader. I have to understand a lot of different systems and maintain my subject matter expertise down into the energy space.

**MEG:** I think maybe you're driven by fear or greed, right. And mostly me, by fear. And, and one fear I walk in with every day is: how do I inspire the team to be bigger than themselves? And, and I, I think that that is such an important part of developing new companies, right? Because one reason that I've been able to do so many great things and have so many amazing opportunities is that I had a great team around me. And, and to walk into the team and be a servant leader, and ask them, you know, what do I need to do for you today, because I need you working your ass off. Right?

And my philosophy is very simple. Family comes first, take care of your body, and work your ass off. And take care of your body so that you can work your ass off, please. And, and so, when you find yourself needing to connect all those dots that you're talking about, the, you know, international development and cultural understanding of different people that you're going to negotiate with, putting together a commercial agreements, understanding government, working with public policy makers to make sure that an environment is conducive to the business that you're going to build, working with the media so that they can help, you know, advertise and communicate messages and, you know, be consistent. Putting all of those dots together requires that, that kind of, you know, simple philosophy and we're going to come in, we understand what our mission is. We have a team of highly, highly intelligent, innovative people that are going to be relentless and resilient at solving problems, and are never going to find a problem that they don't want to solve. And let the team build themselves, be bigger than themselves, and we will do things that no one could even imagine.

**STAN:** Wow, that's inspirational. I still don't understand the oil and gas stuff, but that doesn't matter. Let me join Chris in thanking you, Meg, for your time today, for all the insights that you provided with us and for you're doing. Because it's going to be a better future, you know, it's going to be a more energy efficient future, and that's because of people like you. So, I just want to thank you for sharing all that with people today and all the best.

**MEG:** Well, like I said, at the very beginning, I'm so honored to join you here on *No Turning Back*. And I'm grateful for everything that you're doing to inspire existing leaders and new leaders. This is really such an important space to bring together new ideas. And I'm here anytime to teach you more about energy.

**STAN:** We need it!

**CHRIS:** Meg, really, really appreciate the time. Great to see you here and Stan, as I told you before, Meg and I went to a school together back many years ago. And when I first described you to Stan he said, well she was that person that you wanted to be in her study group. Right?

**MEG:** Ah, because she works her ass off!

**CHRIS:** You put your name on the paper you're getting guaranteed at least a B.

**MEG:** Maybe that's how Chris became the smartest person I know, Stan.

**CHRIS:** Awesome seeing you. Thanks for this and look forward to catching up soon.

**STAN:** Perfect.

**MEG:** See you, Stan. Thank you so much.

**CHRIS:** So I know you know this, but Meg and I grew up together, we went to a high school together. Always been that sort of intense and brilliant person and it certainly paid off in her professional career, but now it's, it's paying off for a much larger swath of us, the HIF technology is, is pretty exciting and you don't hear enough good news stories like that coming out of the energy sector.

So it's, it's impressive to see her do that and impressive to see a leader who could, you know, take 25 years of experience and get the next sort of a C-suite position in one of the strategics, go down this less traveled and riskier path, to really try to make a difference. That was a, it was great to hear what that is and just an impressive decision.

**STAN:** It was really interesting to me because when you look at her pedigree, her experience, she got into basic oil and gas. She worked her way up and developed extraordinary expertise, which means to me, that getting into the alternative energy sources is a little bit non-standard at least in my mind, but also she understands all of the parts that, that she's essentially competing against or changing now. So, it's not like she's coming out of, you know, a separate university with just an idea and she's gonna do this. She's actually from the pack, and she stepped away and she's going to do something different.

But it also comes through in her comments about commercial scalability, and viability. She very much understands this isn't a science project. This is something that affects the world economy and every one of our lives.

**CHRIS:** Yeah, I could have spent, we could spend an hour just talking about that: sort of how leaders like that develop across the spectrum, that I started to understand those different skills that they need to bring to bear. Her answer was very ... true to form and who she is as a leader, sort of a servant leader model. But there's, there's more, I would love to tease out there. And I'd be curious, your thoughts on that space in general. You know, no one taught Meg how to, in her

programs or her professional career, how to close a big capital deal or how to interact with the right parts of the media, or whatever it is. Like all these skills that you have to develop.

I think my observation, some leaders, so to choose not to, and they just want to stay in their, in their vertical. Some leaders don't get that big picture and some, some leaders really focus on it and refine it. Any thoughts there? Like does that people that start to learn that early and refine their skills, does it come at a, in your observation as at a near term cost, but a long-term payoff? Or should it be more a more deliberate approach to how we develop high potential leaders moving up through the ranks?

**STAN:** Well, you touched on it a little bit wwhen you talked about junior military are not particularly schooled to be strategic level leaders. There's a certain amount of experience that comes with it. And then there's this serendipity of, do you get the right job? Do you get exposed to the right things? And yet, what we find is when you're at the strategic level, you have to have those skills and a leader who gets there. And it happens all the time, without those skills really suffers for it. And the organization suffers for it.

So, this really gets to the idea of how do you select for it> How do you train for it? How do you give people the experience sets to do that? The different opportunities to do that? And when she talked about startups that are maybe dealing with interesting technology, but they don't have the expertise to, to draw on the whole community of different technology, but also it's a lot harder for them to go and put together a big deal.

And so these skills are really interesting to me. It gets down to, so what kind of leader do you need for innovative fuels? Do you need a really good deal person who kind of understands the technology or do you need a technologist? And I would argue that she is really the former, I mean, she understands technology, but she's got that, that expertise that I think is going to be...

**CHRIS:** Pivoting here a little bit, but curious your thoughts on the, on the US government broadly military specifically in that, in that arena. My observation from my career, and this was probably, I've never really thought about or done any research, but probably much different than it would have been World War II, previous generations when sort of senior leaders over the last 20 years, when they put together these great sort of... their immediate surrounding team, it would be this convergence of personalities that many of us, as young leaders knew like, oh, Carl so-and-so and this Admiral, et cetera. And a lot of their pedigree came from, you know, PhD from Princeton, spent time at MIT, spend time here, that you didn't see a lot of Naval postgraduate school or, you know, grad degree from West Point.

They were certainly in the mix. Right. I know, as a younger officer, you thought it was this cool and shiny thing of like, look at all these Ivy league MBAs and PhDs that are coming together. I'm not saying that's a good or bad thing, but do you think... in big institutions struggle and you can apply this to an Exxon or State Department ... do they struggle to develop that level of cross-boundary thinking internally? And is that a proper leveraging of external resources or did you see I'm sort of missing the mark thing happening inside the military specifically?

**STAN:** Yeah. I saw a struggle with that. I think the basic thesis that you need that diversity of expertise and thought is absolutely correct. And in today's world, even more so. But I think that the military, like any big organization, particularly with a guildlike structure where you enter at the bottom and you work your way up, the challenge is it's really hard to have people who are a bit different make their way to the top. There'll be the occasional ... or something. But the reality is they're the big exception and that's a challenge for the institution, but because the institution, unless it has processes and procedures to develop that expertise or to bring it in aggressively can be sort of hermetically sealed from new ideas.

And you also have this culture that reinforces you to be really good at what's been done before. Because it's in doctrine. And so, I think we've got to find a way to change both how we develop those leaders, but then how we get fresh air into the organization, almost a forcing a forced basis constantly.

**CHRIS:** Yeah. That's interesting. I'm biased in my view because I spent time there, but I thought that Naval postgraduate school made an interesting move post-World War II, moved from Annapolis out to the West Coast for a host of sort of basing issues unrelated, but as a result, a lot of the staff, at least in the program that I went through that was designed by Bill McRaven generations earlier was mostly civilian leadership from Rand and Stanford and, you know, sort of West Coast institutions. So it had this strange, sometimes awkward blend, but I do think this, the students benefited because they weren't military thinkers. Right. And they, they sort of look sideways and a lot of the military doctrine but it it's fortunate to challenge your thinking.

So anyway, it's it is an interesting question in the leadership development space. It's also a question of like the barrier of entry to be able to do that at scale is so expensive. Right. For, you know, an Exxon can do it, a JP Morgan can do it. But you're not going to do it with a startup. The military can do it.

But it's interesting to see how Meg has gotten there on her own sort of, you know, I think working your ass off is probably how she did it to her to steal her own her own phrase. But yeah. Great discussion. Really interesting to see where that whole sector's gone. Exciting to see how close HIF is to getting some real examples on the ground in Europe. That's going to be, you know, a seed change in how we look at the energy sector potentially.

**STAN:** Yeah. I think it's exciting.

**CHRIS:** Thanks to Meg and thanks to everybody for listening in.