

# **Oral History Interview Transcript**

Course Title: Energy in World Civilizations

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**Mudmee Sereeyothin:** This is an interview with Mr. Vinai Sereeyothin for an Energy in World Civilizations course at the University of Chicago. The interview is being conducted on February 25, 2023 over video call. The interviewer is located in Chicago, Illinois and Mr. Vinai is in Khon Kaen, a northeastern province in Thailand.

Thank you very much for participating in this interview with me. I am aiming to keep this interview between 20-30 minutes<sup>1</sup>. What I am broadly interested in asking you about today is what the changes in energy systems and energy uses you have experienced in your lifetime are and your thoughts about these changes.

**Vinai Sereeyothin:** Mmm hmm.

**MS:** I did want to say that although I will be primarily interviewing you in English, if you ever feel like there are any concepts or ideas that are better captured in Thai, you are welcome to share those too and I will translate them for the transcript. So, to start off, could you please tell us a little bit about yourself – when and where were you born and where did you grow up, like, geographically, and attend school and university?

**VS:** *[starts speaking in Thai]*

*Translation: Hello, my name is Mr. Vinai Sereeyothin. I was born in Khon Kaen province, which is located in the northeastern part of Thailand. I grew up here – I finished high school at the public provincial school and continued my bachelor's education at Kasetsart University in Bangkok with an industrial engineering major. After that, I got my masters in International Management in the United States. After that, I returned to Thailand and started working for the family business around 2000 or 2001. As for the family business, I'd like to give some background about that.*

**MS:** Um, sorry would you mind doing this part in English, just because...

**VS:** Oh would you want me to speak in English?

**MS:** Yes, I meant a little bit more like if there was a certain idea that was easier in Thai, you're welcome to use the term... it'll just be really helpful for me if you did most of it in English.

**VS:** Oh yes okay I try.

**MS:** You don't have to redo the first part, I can translate, don't worry.

**VS:** Okay. So after I came back to Thailand around 2000, let's say 1999, I started working in my family business, which is a fishing net factory. And I worked as an export manager to take care of foreign customers mainly. So, I traveled a lot, I see a lot of the fishing net industry in many, many countries. So, I gain something from my experience that our business will help poor people. So that's why our business dealing with the fisherman mainly. So uh, I work for our business, I mean fishing net business, for around ten years. Okay, and one of our partner doing business about renewable energy offered to our company to make a joint venture, to build up a solar farm, and selling electricity to the government in let's say 2012. Around 2012. So, we decided to join this opportunity and we built three solar farms in Saraburi province, which is around 5 megawatts each. And at that time, the renewable energy especially for the solar energy is quite new to Thailand. And

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<sup>1</sup> The interview actually lasted about 40 minutes.

because of the global trend to reduce the fossil fuels, the government try to encourage or try to promote this kind of project in Thailand. But of course it was because of the cost of investment is pretty high, the government tried to give an incentive to the investors who invest in this kind of business. So after we calculate the feasibility study, we think that it's worth it to try. And okay we started around ten years ago. Okay. And everything went well. We learned so much about the technical stuff, how to manage the solar farm. How to deal with the problem about the uh, community around the solar farm that we built. Because at that time everybody fear about this kind of new technology [chuckles].

**MS:** Could you expand a little bit about what the sort of problems that you were facing were?

**VS:** Uh huh. Because in that time the solar technology it's uh, in the early stage of the development, so there are so many problems about the technical. The solar panel itself, the inverter, it was another problem also because of especially in Thailand, because of the temperature in Thailand is quite high because it is located near the equator, you know that?

**MS:** Mmm hmm.

**VS:** So the temperature in Thailand is quite high compared to Europe or other regions. So, because of the hot whether will, okay, effect directly to the equipment that we install, so we have to fix it quite often. And it will, it also impact to the output of the system also. That is one thing and the other is, in Thailand, there is a lot of dust and dirty. It always cover on the solar panel surface, which cause the lower production. And we have to use a lot of water for cleaning. And it will, you know, most of the solar farm are located nearby the area of the farmer or something like that. So we have to extract the water from the reservoir nearby. That's why the farmers always fear that the solar farms will get the water for that.

**MS:** And so, who sort of owns these water reservoirs? Is it public space or?

**VS:** Yeah, yeah mainly it's public – like the lake, the river or something.

**MS:** And so, when you sort of face these problems, did it take negotiations with farmers or how did you resolve those issues?

**VS:** We have to set up the plan to manage the water usage. At that time we don't know yet how much water that we need to clean the solar panel, so we clean up the solar panel quite often. Two or three times a month, which use a lot of water. And then we collect the information and data and analyze. And we found that actually it can reduce the water usage by calculate, I mean uh, how much the dust or the dirty on the surface compared to the output that we get it. We found that we can reduce to twice – two months, just one cleaning it's okay, no problem. Which use less water. And of course we try to use the under water – underground water – instead of the natural resource like the lake and river. But of course it cost a lot of investment too

**MS:** I see. I'm also interested in what you were saying about how the government is pretty invested in these solar energy projects. Could you maybe give a little bit of background about what the energy landscape in Thailand is like, like what most people use, and the specific sort of policies or subsidies that the government is using to incentivize investors.

**VS:** Yeah. I think the government try to promote the renewable energy from the climate change agreement. And try to control the temperature not higher than 1.5 celsius or something like that from the agreement. And then the government try to plan, to launch the project, not only the solar but other clean energies like the biomass, biogas, and wind energy also. And of course, if you compare the investment, compared to the cost of electricity that produced by kind of technology it's quite high. It's not like feasible to invest. So the government must give the incentive by using the extra, I mean uh, the [*speaks in Thai; translation: what is it called? The subsidy*].

**MS:** Okay.

**VS:** To make it more reasonable for the investor to do that.

**MS:** So it seems like you've been in this solar business, this solar venture for just over ten years now. What sorts of changes or trends do you see or have you seen in the past ten years – I guess where are you now?

**VS:** So after the first project that we invest in the solar technology, we keep monitor what is the cost of the solar technology decline so much in the last ten years. At that time to invest 1 megawatt, you must invest around 100 million baht per one megawatt. But now today, you only invest just 20 million baht per one megawatt, which is five times less [*chuckles*]. Even if we invest today, we do not need any incentive from the government. And of course the efficiency and the output from the technology it's quite good compared to that time, more reliable.

**MS:** Do you find that there are any, or what sorts of problems still exist for you to solve in this solar sphere or any issues you've been facing?

**VS:** I think for the solar energy it's quite suitable for Thailand because of the weather it's very good for the solar technology. But of course it's quite new technology for the people. So, we have to give the knowledge to the people to learn about the, how good it is. Because majority of the people still think that it's the new technology to them; to put the solar in their place or something like that so we have to teach them. We have to give them the information. We have to do so many things, yeah.

**MS:** What is the sort of model for, I guess, let me backtrack a little bit. When you say that the people think the technology is really new and so they're not really sure about it. Are the solar panels sort of installed locally on households and stuff or is it on a farm and the energy is rerouted to the people and they're not sure about that? What is the form of relationship between the actual panels and the communities?

**VS:** Actually they are not sure that it is worth it to invest in the solar compare to what they pay the bill of the electricity today. Do you know? It means you have to show them about the reference size, to show them the actual result. Even sometimes they ask can you commit or guarantee the output of the solar system or not or something like that. Because the solar panel depend on the sunlight. Sometimes it's good, sometimes it's bad. But overall it's okay. But they say what's going on when today it's so cloudy [*chuckles*] or something like that, or so much rain! How can we produce the electricity from the solar from something like that. But we say that we have to see in quite a long period, like the whole year, to see the whole output, something like that. That's why this is the disadvantage of solar also. No matter if you put it on the roof or put it on the ground or put in the

water, it faces the same problem. Because they are not sure that they can produce electricity all the time. Because the weather fluctuates right, from season by season, something like that.

**MS:** I'm also interested in what sort of market you target in your solar business development towards. I know that ten years ago you had started with the solar farm and I know more recently from my conversations with you that you've pivoted also to selling solar systems through the Thai equivalent of Amazon. Right?

**VS:** Mm hmm.

**MS:** So I was wondering if you could talk a little about what the thinking behind that is – why did you switch markets – are you switching markets – from big investments to smaller scale? Or any thoughts you have about that.

**VS:** Yeah because okay when we monitor the price of the system declines so much from the past ten years and when we compare with the price of the electricity nowadays we thinking it's quite reasonable to invest the solar system in any kind of business, you know, no matter the residential, the industry, the factory. In any kind. That's why we changed our direction from the government project to the private company. To offer this kind of project to them. Energy saving project. Of course when we calculate the financial model to them, it's quite impressive because it can get back the return by five or six years only. This is happens to the resident also.

**MS:** Oh wow.

**VS:** And of course the solar panel itself it can last long to 25 years already. For the latest technology. You can imagine you can get your investment back in just five or six years and the rest of the lifetime of the solar panel, you can use it for free! It's better than you put your money in your bank [*laughter*].

**MS:** So when you say there's a five or six year return is that also generating revenue? Like can people sell that energy back to the grid?

**VS:** Yes, yeah. Actually the government has the policy to buy back the excess energy produced by the private also in case that you don't use it all, right? You can sell it back to the government. But the price that the government will buy back is quite low.

**MS:** And I was wondering as you've transitioned from the government to the residential markets – have you seen a lot of growth in those residential markets?

**VS:** Oh, sure. And because right now the solar technology is widely accepted by the people because they have more knowledge around it.

**MS:** And what sorts of people do you find come and buy your solar panel systems?

**VS:** Do you mean the way we reach out to the customer?

**MS:** I guess I was interested to hear about what your clients are like. Are they middle class Thai citizens? Are they upper class, are they farmers? Who is buying the solar panels?

**VS:** For residential markets – most of the customers are middle class people. Like who has quite high salary or something like that. And they get the contact to us by the social media mainly. By the Facebook, TikTok [laughter], Line Official<sup>2</sup> something like that.

**MS:** And so where do you see solar energy going in the next five to ten years?

**VS:** In my opinion, I think because of the new development of the solar energy will make the cost decline gradually year by year, so it will make sense for us to expand the market also. Still declining.

**MS:** Could you elaborate a little about what you mean by expanding the market?

**VS:** Because of electricity that the government charge to the residential or the factory is quite high. Because the main fuel that they use to produce the electricity in Thailand come from the natural gas and gasoline or something like that which you see is quite high, right? 80-100 USD per barrel. And of course the cost of natural gas also high from the war – the Russia and Ukraine – makes the energy price go up very fast and stay high very long, which effect to the cost of electricity also. And of course Thailand doesn't have our own natural resources, we have to buy from the outside. We have to import. Which is the good opportunity for renewable energy also. For example, from last year until now, the price of electricity in Thailand increased by more than 20 percent. You see in less than 6 months. 20 percent. And of course, if you see the new trend from the EV car – you know in this year, the number of EV cars in Thailand will triple from last year, which means that we need more electricity to fuel the EV cars also [chuckles].

**MS:** Do you think that the big renewable energy source that will take off the most in Thailand will be solar or will it be something else?

**VS:** I think in Thailand the most suitable renewable energy is solar and the biomass because in Thailand we have so much waste – agricultural waste. Like the [rice] husk – oh so many kinds of agricultural waste. So we can use it as biomass to produce the electricity. And of course, for wind energy – [shakes head] not so many places that are suitable for wind energy in Thailand.

**MS:** Is there anything else you wanted to talk about that I haven't touched on?

**VS:** I think the future of renewable energy especially for the solar technology will expand a lot in Thailand because for next year, in European market, United States or even in Japan, they just passed the new regulation named CBAM. It's the regulation that when you produce the product and you want to sell it to those region, you must make sure that all of the product you produce use clean energy. It's kind of like barrier – barrier tax or something. If you don't use clean energy or green energy, you must pay higher tax, which will reduce your competitiveness. That's why I said that renewable energy in Thailand will expand so much in the near future – in the next three to five years.

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<sup>2</sup> “Line” is the most popular messaging platform in Thailand – “Line Official” is an organization/company's “official” Line account where they often send promotional materials and deals to subscribers.

**MS:** Do you see that as more to do with the companies and corporations that are dealing with the new regulation or do you think it will be on the residential scale or a combination? Or I guess who will be the biggest key player in your opinion for this new energy boom?

**VS:** I think nowadays for the private energy I mean for the energy company in Thailand, there are the old company and also the new company that try to play the role in this kind of business. Let's talk around ten years ago there are only a few companies that are doing the renewable energy in Thailand. Maybe less than ten companies only. But nowadays for the private companies that step into this kind of business – I think more than a hundred! Both small, medium, and big. Even the company that don't related to this kind of business still jump in, try to open the new kind of business also, you know, try to expand, try to jump in this kind of business because they see the growth, they see the potential.

**MS:** Thank you very much for your time. If there is anything that you would like to add feel free and if not, then I think we can wrap up the interview.

**VS:** I think not the solar energy – if the solar energy is not good for the investment but it's good for our country, for our world also, right? You install more and more of the solar, you help yourself also.

**MS:** Can you expand on that? What do you mean by that

**VS:** Of course you use more of solar energy to produce the electricity it means that you use less fossil fuels right? Yeah. Makes sense?

**MS:** Okay. Thank you very much for your time.

**VS:** Thank you.