Post Webinar Q&A:		
Answered by Dr. Twarath Sutabutr, Inspector General Ministry of Energy, Thailand		
1	Q	What is the current situation of Thailand energy from waste and what is the gov policy or what our gov should do regarding the energy from waste
	A	*Waste-to-Power is one of the fast growing RE subsector in the country in the past 24 months, about 400 MW of powerplants have been solicited and problably 400MW more to come*
2	Q	How will the government help reduce energy cost burden to low-income households? Are there any measures to support this group? 2. Energy efficiency plan (EEP), how will the government expand its breadth and depth to cover more residential sector more as its electricity demand is growing?
	A	*The best way to help so called "the Poors" is through the "Pracharat Card", which is a direct funnel of help to the end-users. So that this type of subsidies doesn't have to be hidden or embeded in the structure no more. And it is not fair to allow some consumers enjoy a subsidies on the burden of another consumers-group.*
3	Q	Please elaborate more on the stagnant in Cost Reduction of Li-Ion Battery and EV, and why?
	A	*China-shutdown means much slowdown in production of Li-Battery, and with low level of production I think there will be no cost-cutting or any new innovation to help lower the cost of production.*
4	Q	As mentioned about the possible new normal for price that the price of fossil fuel will be equal to the price of RE, these will be treated equally, Why would the trend be like that can you please give the reason(s)?
	A	*Because the price of Oil and Gas (LNG is benchmarked) will stay low for a while, and I don't think there will be any government in the world that will give such a generous subsidy to RE. So, the new mindset of the new normal of Post-Covid is that you have to expect that RE can not rely totally on price subsidy any more.*
5	Q	Thailand RE adder especially for solar power plant, what is present Fit and any change in the future?
	A	*The latest FiT for solar tecchnology is for the "Solar Rooftop" project, and the FiT stands at 1.68 ThB/kwh.*
6	Q	What about the hydropower dam in on the Mekong river? what's policy on it?
	A	*If regarding to the new plan of buying more power from hydro project from Lao PDR, I think we have to revisit our PDP first (with new Load Forecast) and see wheather Thailand needs such a power or not. At the moment we already took up close to 6000 MW from Lao PDR with the envelope of 9000 MW agreed in the MOU by the 2 countries.*

7	Q	For countries like Phillipines and Indonesia it is difficult to connect to the asean power grid. What are the chances for Local/mini grid power supply by RE?
	A	*High and great potential. Especially for the "Distributed Energy System (DES)" can be best fit for the 2 countries*
8	Q	How about the plan for EV car?
	A	*The plan to roll-out EV in Thailand may be slower than firstly anticipated*
9	Q	How about future biofuel and oil fund policy/direction from Thai Govt. after Covid?
	A	*This will stay pretty much the same. We will continue support the Biofuels initiatives with some minor changes.*
10	Q	Does ministry have national policy on house/building solar roof top as Thailand has sunlight almost all year
	A	*Yes we have. We even tried many finaical schemes such as high FiT-6.95 Thb/kwh 7 years ago to the current 1.68 ThB/kwh*
11	Q	How far is Thailand on Fossil free in terms of Carbon footprint and Climate change crisis
	A	*In term of Renewable Energy portion, Thailand has 17% of RE in our total Final Energy Consumption*
12	Q	Could you tell us some policies about residential or micro-grid after the virus passed
	A	*There are many thoughts of allowing the "Behind the meter concept" and allowing the utulities to provide some micro-grid friendly ansilary services.*
13	Q	What is thailand policy for renewable energy when oil price is low?
	A	*Support continously with modification of some schemes*
14	Q	What is the situation of EV and battery energy storage in ASEAN/ Thailand after COVID?
	A	*I think the EV market will grow slowly-slower than first anticipated- in ASEAN, due to mainly lack of government support on some barriers. And IMO, the retail oil prices in ASEAN countries are relative low (except in SG) for a good penetration of EV*
15	Q	Private PPA in fitire - Thailand is ready to accept open access to grid? I understand most grid is managed by Egat/PEA/MEA gov't agency only.
	A	*Technically, Thailand is ready for Open Acess Regime both in Transimission and Distribution levels. However, on the legal-wise or Contract-term we (the Power utilities) are quite not ready yet.*

16	Q	Can you say something about the Community Power Program Energy for All, where the local communities are integrated into the program by supplying the feedstock such as Napier Grass to the investor, also participating in the PPA power sales,
	A	*The details will be annouced soon*
17	Q	How to set up government scheme in solar Photovoltaic technology?
	A	*In my own opinion, I think the best public policy on the Solar-Powered system is to let the end-consumers install such system on their own roofs, either residential or commercial ones. The government can help in term of streamline the permitting process with less or no "Soft" budget incurred*
18	Q	COVID will be obstructed EV plan in Thailand or not ? How about your idea?
	A	*Yes. The sales will be slow. Low oil prices will be another obstracle to EV expansion*
19	Q	From this COVID-19 crisis, do you think that the government is going to subsidy more on RE to accelerate RE to get bigger in Thailand ? The benefit will be attracted more of investors ?
	A	*Not necessary*
20	Q	What will be the price trend to consumers of electricity price in the coming years?
	A	*The price will be lower*
21	Q	How to colaborate AI or Big Data in RE Development, particularly in rural areas that located in developing country?
	A	*IMO, the best model is to formulate a mobile-type of unit for AI-controled Solar-Battery system. The application can be both for domestic use for households and productive use such as water-pumping or aqua-farming.*
22	Q	On the high reserve margin in the power sector (over generation capacity), which was already the main issue before Covid-19 and now is even more apparent. What would be the main policy in dealing with this issue, particularly the PPA with private producers that are quite inflexible? Would the private sectors/utilities agree with the changes in the structure of the electricity sector?
	A	*Many studies have been done to restrucutre Thailand Electricity Industry, but it will be difficult to implement.*
Answered by Mr. Peter du Pont, Ph.D., Managing Partner, Asia Clean Energy Partner Ltd., Asia Regional Coordinator, Private Financing Advisory Network (PFAN)		
23	Q	Given the role of (public) energy companies in ASEAN countries, what do you expect the downfall of covid-19 will be on the many large investment projects (besides those in the energy sector itself) these companies are involved?
	A	*For state enterprises and public companies with large grid connected porjects, for example solar and wind, I expect that many of these projects are on hold now and will likely be resumed once we come out of the initial recovery from the pandemic, because the basic demand for power will return at some point. More broadly, it is hard to comment on impacts outside the energy sector.*

24	Q	Is ASEAN ready for the changes and adjustments for our new normal?
	A	*The adjustment to a post-COVID market place will be stressful and challenge for many businesses. At the same time, I believe that in the "new normal" there will be many opportunities for innovation and development of new technologies and services. In particular, in the energy sector, as Dr. Twarath described in his presentation, it will not be possible to continue subsisdies for fossil fuels and we will see a transition to a new, more open market place. I believe that innovative clean energy companies will thrive in this market place, and that we will move much more quickly to a "low carbon" energy system than many currently think possible.*
25	Q	We're seeing that with the halt in activities, the environment around the world is better. Don't you think that policy may drive towards RE even more, instead of the whole COVID situation pulling demand down.
	A	*Yes, I agree that post-COVID policy will be more favorable to renewables, and that once economies start recovering in ASEAN that there will be more demand for RE. The reason is that, as Dr. Twarath mentioned in his talk, budget-stretched governments will not be able to continue to subsidize non-economic power plants, and RE will be able to compete better. As he suggested, we will likely move away from the Single Buyer Model in the next few years in many ASEAN countries, due to economic pressures.*
26	Q	As we knew that during Covid-19 quarantine, energy emission and pollution became lower.In post Covid-19 later, will there any policy or steps to keep these minimum emission?
	A	*Once economies start rebounding from COVID and power demand increases, there will be pressure to build or restart power plants to meet demand. This would tend to lead to increased emissions, unless, as you suggest, there is a policy to limit emissions. I think a good policy to limit the increase would be a carbon tax, which could gradually be increased, as well as trading of GHG emissions.*
27	Q	What will be future RE growth in ASEAN post COVID-19 ? Which renewable energy will contribute to the major share of economic growth of ASEAN?
	A	*I think that post COVID, there will again be growth in RE, because its fundamental cost trajectory is downard, and that of the fossil alternatives for power (natural gas, coal, diesel) are flat or at least not falling as quickly as RE. And they create energy insecurity. And once it is possible to build solar and hydro (e.g., floating solar at hydro plants) or solar and battery storage at large scale, there will be very little incentive to continue with large-scale, fossil-based power projects.*
28	Q	Do you think government policies in renewable energy will be significant factor for renewable energy business in some countries ?
	A	*Yes, government policies will be necessary in order for renewable energy to significant expand in any country. Unless there are policies favorable for RE and access to the grid, RE will be limited mostly to "behind the meter"--for example, rooftop solar projects at industrial sites, also called "captive power".*

29	Q	Global fossil fuel price is at lowest forever. Will this hamper the low carbon evergy transition?
	A	*I think low oil prices may hamper the shift to low-carbon fuels in the short run, but over the longer run the volatility of oil and gas prices and the fact that they reduce a country's energy security, mean that they will not be favored. One thing to keep in mind also is that oil is not used in any significant amount for power production. So low oil prices would not necessarily lead to a shift away from renewable power to fossil-based power. As noted above, I think that the continued reduction in prices for solar and wind, and also energy storage, will make them the dominant sources of power.*
30	Q	Will there be an increase in investment on Energy Storage System, in order to efficently utilize electricty?
	A	*Yes, as the cost of energy storage continues to decline, and the technologies improve, there will be increasing investment in many different kinds of storage options such as battery storage, hydrogen, and other storage alternatives.*
31	Q	For now, most of the company and building use generator for a 2nd sources of energy/electricity. But actually it produce more unusustainable energy and waste such as the carbon monoxide, unwanted sound (even the silent generator still make a bit noise) and sparepart waste. Is there any other option to find a 2nd sources of electricity that is more sustainable and the cost is acceptable for the company who use it? any opinion about this matters in asean doc?
	A	*One interesting option for backup power to replace diesel-fired backup generators in buildings and factories is battery storage used in combination with solar rooftop PV.*