



Session Title: Energy Powering Asia Pacific Growth
Date & Time: 4 April, 16:05pm-17:00pm
Moderator: Tengku Muhammad Taufik, Deals Partner and Oil & Gas Leader, PwC Malaysia
Speakers: Dato'P'ng Soo Hong , Vice President of Manufacturing Operations & Managing Director Malaysia, First Solar Edward Graham , President, ExxonMobil Exploration & Production Malaysia William Greenlee , Partner, DFDL, Myanmar

Introduction & Purpose: Energy is essential for economic growth and striking the right balance between fossil and renewable sources is important. Asia is known for its natural resources. What are the Asian nations doing to address the surge in energy needs while balancing budgetary and environmental concerns?

Summary of the session

Speaker: Edward Graham

The challenge within the industry is being able to deliver energy to serve the growing demand whilst doing it in a clean way. There is about 2 billion in population that's moving into a middle class sort of status that will result in an increase in demand for energy.

Despite an increase in the use of renewables and a significant improvement in air quality, CO2 emissions are estimated to increase. Stabilizing these emissions is what could be done at best, and that itself seems to be rather challenging.

A 20 year forecast that's driven mainly by Asia Pacific resulted in a growth in chemicals tied to the usage of plastics and other products. The amount of oil that's needed to satisfy that need is equal to the amount of oil that's consumed globally today as fuels for vehicles. This means, even if every vehicle was electrically powered by 2040, we'd be still consuming the same amount of oil we are today.

Huge investments on finding and extracting these energy sources together with a rise in the use of renewables are some efforts that are currently being exercised to meet these demands. **China, who was initially using coal as part of their growth agenda is now seen to be moving towards renewables which is positive for climate change.**

There also is a surge in natural gas consumption globally. The other big surprise is the increase in consumption of shale gas in North America.

There are adequate supplies to meet the world's energy demand for the next 20 or 30 years. **It's the ability to deliver these energy resources in a manner that is friendly to the environment while meeting these demands that poses a challenge, especially with petroleum products remaining the highest in demand.**

Moderator: We are aware of the demand for energy. We have seen this summit described as an Asian Century. Policies in Myanmar are in the midst of shifting. How would a country like Myanmar fuel growth?

Speaker: William Greenlee

Myanmar is in its nascent stage of opening up its doors to the world. A large number of its population is still without power. Given that and other issues like the absence of a solid legal

infrastructure that could potentially attract investments, Myanmar wouldn't be able to focus on renewables. It is however blessed with loads of gas. Right now, there is a shortage of gas as most of it has been contracted to power Bangkok.

There is immense Hydro potential in the country. The lack of political will hinders its growth as it would require vacating the locals off a specific location that could possibly invite negative press.

The make-up of the power mixes is still unknown. Myanmar still lacks what its neighboring countries already have i.e. proactive leaders and an encouraging legal system that could attract investments.

Moderator: Do you see solar energy as a benign solution to the rural areas of the larger masses within Asia Pacific?

Speaker: Dato'P'ng Soo Hong

Solar energy is the way forward to help energy companies to reduce the peak power generation/plant which utilizes costly raw materials to generate power.

Energy mix in the world energy today, for example in Malaysia is sub 1%, which is significantly low despite solid evidences of it emitting way less CO2 while reducing the consumption of gasoline.

People's perspective is that solar energy is designed for the rich. However, over the last two years, the cost of solar energy has reduced drastically.

Solar remains a hybrid solution. It not only is used as a source of energy but creates a very much livable environment as it provides the opportunity to balance the energy mix.

The rise of use in solar energy in this region would also open up the economy and provide ample employment opportunities to many whilst sustaining the environment.

Moderator: Malaysia has very recently managed to demonstrably wean itself from depending on the oil and gas industry. With Myanmar, there may be policy decisions to monetize its energy resources. How would each

of you position each of your entities in a situation like this, in the upcoming Asian century?

Speaker: Edward Graham

ExxonMobil boasts itself as an energy company. It is currently focused on some other technology to meet the energy demand in the future. **What ExxonMobil is looking at this very moment is to reduce CO2 emission.**

Exxon Mobil is working on a variety of technologies to ensure sustainability. Its historical expertise probably could deliver better results for society. Exxon Mobil is definitely supportive of other industries working in the area renewables or solar energy.

Speaker: William Greenlee

In this part of the region where the energy industry seems to be at its infancy, the government is lacking expertise in vital areas where they get advice from outside i.e. World Bank and etc. who have different plans and agendas.

As such, it is less clear as to what the energy mix will be in this emerging market. It would be rather practical than a desire to have renewables.

Speaker: Dato'P'ng Soo Hong

First Solar's future product is going to be called Series 6. That piece of equipment would be able to produce a lot more energy than any equipment it has as of now.

First Solar's engineering knowledge and know how enables them to provide clients with a competitive solution. It about being able to reduce cost and increase profits for your clients.

There is a plethora of opportunities for the growth of solar usage in this region that First Solar would capitalize on in the near future.

Takeaway from the session

- The energy mix in the region remains imbalanced despite genuine efforts by global entities for a healthy balance.
- CO2 emissions are touted to increase despite the existence of renewables and other energy alternatives. There should be combined efforts by the government and private industries in prioritizing the reduction of CO2 emissions.
- Solar energy places itself as a rather viable solution to balance the energy mix whilst sustaining the environment. Governments in the region should take on a more proactive role in spreading awareness of the benefits of its use in the long run.
- In light of ASEAN harmonization, private industries and governments should further discuss on providing energy at an affordable cost to the rural masses.