

Thailand is spearheading renewable energy deployment in South-East Asia and has recently increased its renewable energy target to 30% by 2036. The country also has a well-established grid infrastructure providing nearly universal access to electricity.

Intervention 1 (4 min):

At a country level, what policies and practices have proven to be successful to advance access to affordable, reliable and sustainable modern energy services?

Making modern energy services accessible and affordable to all has been the key principle of sustaining an equitable society. We have established an electricity distribution investment threshold to extend electrical supply line to each household. This means that the state will invest to extend the distribution line to every community upto the threshold amount per household, and that every household will get access to electricity at the same price throughout the country. This maximum threshold investment changes from time to time, with the current value of \$2,800 per household.

We have also taken similar approach to make LPG available and affordable to all parts of the country since 1984 when the construction of our first natural gas separation plant was completed. The decision then was based on economics of averaging the cost of transport throughout the country to promote uptake of LPG in remote rural areas. Considered as a form of subsidy to customers in rural areas, but this is considered much more preferable than giving transportation discounts to export LPG. Today, LPG from our six natural gas separation plants accounts for two thirds of Thailand's consumption of around 6 million tons per year.

So, in our experience, taking a longer term view on infrastructure investment and averaging out the cost of distribution throughout the country have made universal access to modern energy (reliable electricity supply and LPG) at an affordable price possible as well as sustainable.

Intervention 2 (3 min)

Based on your experiences and lessons learned, what must be priority actions for the coming years to accelerate progress towards achieving SDG 7 globally? What are the main challenges?

We had succeeded in quickening the pace of renewable energy deployment in the last several years due to the strategy of pricing renewable energy at a substantially high premium. Initial ADDER for solar farm electricity was almost 3 times the cost of electricity generated by natural gas power plant. Even recent power purchase price has remained higher than retail price. This has generated a large number of proposals to install and sell power from renewable sources to the point that it is no longer sustainable to maintain a reliable and affordable power supply system.

Pricing premium has been the key driver in accelerating the deployment of renewable energy. However, we have come to question whether that strategy alone will lead to an affordable and sustainable system. We believe that a truly sustainable system has to adopt affordability as its core principle. This could be achieved by applying technology innovation and system integration to increase efficiency and reliability, significantly driving down costs of supply. Integration of floating solar panels with hydroelectric dam generation and an independent dispatch zone based solely on biomass power plants, utilizing smart grid and battery storage, are our approach in finding innovative solutions to meeting the SDG7's targets. Our aim is to design and implement combinations of alternatives that maximizes the use of local renewable resources so that electricity generated from these renewable sources could be supplied reliably at grid parity pricing. And, for sustainability, we will formulate the strategy that maximizes the inclusive engagement of local communities in every step of the power supply chain.

Mr. Amin will be introducing Minister Jirapongphan before the first intervention.

For this short introduction, may we suggest the following:

H.E. Dr. Siri Jirapongphan, Thailand's Minister of Energy since November 2017. Prior to taking office, Dr. Jirapongphan served as a member of the National Reform Council and its Energy Reform Committee, and as the Executive Director of the Petroleum Institute in Thailand.