

Thank you Chairman - Mr. Takashi Kawamura,
Mr. Toshiaki Kuzuoka,
Dr. Ngo Doan Vinh,
Dr. Djadjang Sukarna,
Distinguished members of Hitachi family,
Distinguished HYL participants,
Ladies and gentlemen,

First of all, I would like to take this opportunity to thank Hitachi, Ltd. for inviting me as one of the two representatives from Malaysia to this highly respected event which aims to provide a platform for young talents to be leaders in the region. I am honoured and privileged to be provided with the opportunity to speak and to be involved in the discussions. I hope this will be of interest and benefit to all of us here.

I work at the Energy Commission of Malaysia, which is the regulatory agency of the government responsible for regulating the energy supply industry in the country. What I intend to do is to present briefly some of the energy challenges and prospects in the world and in our country, as well as share possible solutions to achieve sustainable energy in the future.

So what is sustainable energy? Sustainable energy is the provision of energy that meets the needs of the present without compromising the ability of future generations to meet their own needs, and without damaging the environment, negatively affecting social stability and threatening the well-being of future generations. So, today, I will talk about the energy supply situation that is not only of interest to us but also to our future generations.

According to BP Statistical Review of World Energy 2011, the world is facing numerous energy challenges. In the last twenty years, energy consumption in the world grew by 45%. In 2010, the consumption of all types of energy was above average, including oil, natural gas, coal, nuclear, hydroelectricity, as well as renewable power generation. Oil remains as the dominant fuel but is slowly losing share to other fuels. In terms of primary energy consumption, the Asia Pacific region continues to lead global energy consumption, accounting for 38.1% of the world total and for 67.1% of global coal consumption. Within the Asia Pacific countries, coal is the dominant fuel, accounting for 52.1% of energy consumption.

The ratio of fossil fuel reserves-to-production (R/P) reflects how much reserve we have, and based on the annual production, how many years left for us to use each type of energy. BP Statistics shows that, at end 2010, coal remains the most abundant fossil fuel by global R/P ratios, though oil and natural gas proved reserves have generally risen over time. These R/P ratios imply that we are running out of oil and natural gas sooner than coal. In terms of renewable energy share in power generation, in 2010, renewable energy in power generation grew by 15.5% and accounted for 1.3% of global primary energy consumption. We are changing our dependency from oil to gas and to renewable in the future. In 2030, convergence of energy intensities of countries as well as shares of fuels in world primary energy mix will be a dominant trend.

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By

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Energy intensity is projected to continue its long term trend of convergence across countries, towards a lower and lower global level.

I would now like to focus on Malaysia's experience in seeking sustainable energy options. Located in a region with quite abundant energy resources, Malaysia is rich in oil and gas resources, but it is fast depleting. According to a PETRONAS report, as of 1st January 2010, Malaysia possesses 5.8 billion barrels of crude oil and 79.18 trillion standard cubic feet of natural gas. Based on the current production rate, the remaining reserve life for oil and gas is 24 and 34 years respectively.

Since the enactment of the Petroleum Development Act 1974, the Malaysian government has been reviewing and updating our key energy policies and strategies. In 1981, we launched our "Four-Fuel Diversification Strategy" of oil, gas, hydro and coal. Subsequently In 2001, we launched our Five-Fuel Diversification Strategy, whereby RE was included as the "fifth fuel" in the country's energy mix. There have been many initiatives to improve the energy situation in Malaysia. Unfortunately, Malaysia has seen limited progress in renewable energy (RE) development.

Our RE initiative started when the Small Renewable Energy Programme or SREP was launched in the 8th Malaysia Plan (2001-2005) to develop small grid-connected, renewable energy power plants of not more than 10 MW capacities. SREP was targeted to contribute 5% (equivalent to about 600MW) of the country's electricity demand by 2005. However, actual RE generation capacity was way below the target set. Subsequently, a new SREP target of 350 MW was set in the 9th Malaysia Plan (2006-2010). Unfortunately, despite various fiscal incentives, only about 10 grid-connected plants of about 56.7MW total capacity were commissioned at the end of the plan period. The two major barriers that have been identified are difficulty in securing project funding from financial institutions and fuel supply security issues.

In our latest major initiative to boost RE development, Malaysia has decided to reform our legal and regulatory framework for RE. This includes the introduction of a RE Act with Feed-in Tariff Mechanism, RE Fund and RE procurement obligations on power utilities as well as the establishment of a dedicated RE Implementing Agency called Sustainable Energy Development Authority or SEDA. The country is also pursuing a more conducive RE business environment, intensifying human capital development, enhancing RE research and development, and intensifying RE advocacy programmes. With all these initiatives in place, we hope to achieve the new RE target of 985 MW or a 5.5% share of generation fuel mix by 2015.

Apart from RE, we have also embarked on initiatives to improve our country's energy intensity, which according to a report by the Energy Information Administration, is currently relatively high in comparison to those in developed countries. In this regard, we would like to emulate countries and states such as Japan, Denmark and California, which have succeeded in decoupling energy demand from economic growth.

In line with that objective, Malaysia has been promoting energy efficiency practices among industrial, commercial and domestic consumers through various capacity building and incentive programmes since 2001. We have also been pursuing efficient energy management by large consumers through the Efficient Management of Electrical Energy Regulations 2008. Electrical equipment energy efficiency is being promoted through the energy rating and labelling scheme. We are also inculcating energy efficiency culture through efficient electricity pricing and public awareness programmes.

In summary, in its efforts to enhance energy sustainability, Malaysia has been pursuing renewable energy resources development and energy efficiency improvement in the national economy through various incentive programmes and regulatory frameworks. At the same time, the country has also been diversifying its sources of energy supply by intensifying indigenous gas and hydro resources development, securing more fuel from foreign sources, strengthening and expanding supply infrastructures to facilitate regional interconnection, seeking a more balanced generation fuel mix, and exploring and building capacity for the possible nuclear option.

Thank you.