



LOW CARBON ECONOMY AFTER THE PARIS CLIMATE AGREEMENT

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LIFETIME ACHIEVEMENT AWARD FOR THE ADVANCEMENT OF EDUCATION FOR FUTURE ENERGY LEADERS 2014

On 4 November 2016, the world welcomed the landmark Paris Agreement on climate change, less than a year after it was adopted. This unprecedented development in international climate negotiations is testament that with strong political will, countries can set aside their differences and work towards a common global imperative.

Two other agreements last year similarly made headlines and impacted the shift to a low carbon economy. In October, the International Civil Aviation Organization (ICAO) reached an

agreement for the sector to achieve carbon-neutral growth beginning 2020 and in Kigali, Rwanda in late October, countries agreed to cap and phase-out the use of super powerful greenhouse gases called hydrofluorocarbons.

All these steps combined demonstrate the sense of urgency in tackling the problem of climate change. And in large part because global leaders have realized the enormity of this challenge, the world is now beginning to move forward together towards a low carbon economy and clean energy future.

¹ PricewaterhouseCoopers, The Paris Agreement: A turning point? The Low Carbon Economy Index 2016, November 2016. <http://www.pwc.com/ee/et/publications/pub/low-carbon-economyindex-2016.pdf>

CARBON INTENSITY IN DECLINE

Indeed, 2016 saw a marked change in the transition of the global economy towards a less carbon intensive one. A recent report by PricewaterhouseCoopers highlighted that the global decarbonization rate averaged 1.3% over the last 15 years. In the lead up to the Paris Agreement in December 2015, carbon intensity fell by a record-breaking 2.8% (up from 2.7% in 2014).¹ Some major emerging economies, including China, showed sharp reductions in carbon intensity last year. Several countries also saw falls in coal consumption.

These may potentially be the first signs of the uncoupling of emissions from economic growth but it is not enough if we wish to stay within the 2 °C temperature threshold.

In Singapore, we do not subsidize renewable energy options but have taken steps to use a cleaner fuel mix for electricity generation, switching from fuel oil to natural gas. Singapore invests actively in research, development, and demonstration (RD&D) of clean energy technologies to improve the performance of existing systems and develop innovative ways of integrating renewable energy systems into our urban environment. The National University of Singapore (NUS) is proud to contribute to RD&D in several areas including energy efficiency, energy storage, smart technologies, renewable energy sources and natural gas.

CHALLENGES FROM THE PERSPECTIVES OF EMERGING ECONOMIES

Emerging economies have long stressed the need to consider the economic and social consequences of response measures, particularly those with negative impact, when addressing enhanced national and international action on climate change mitigation. Challenges have and will continue to arise with the progressive reduction or phasing-out of market imperfections, use of fiscal incentives, tax/duty exemptions, subsidies in greenhouse gas emitting sectors and energy price reforms to reflect negative externalities of burning fossil fuels.

Any effort to mitigate climate change will affect countries whose economies are highly dependent on fossil fuels. As Singapore positions itself for the next phase of growth in its energy and chemical industry, the Republic is taking the lead in terms of raising the bar in energy efficiency, emissions management and accelerating development of new, sustainable feedstock and technologies in partnership with industry through the Jurong Island version 2.0 initiative.

Recognizing the importance to companies of plant-level sustainability efforts, the Singapore government recently enhanced measurement

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and reporting requirements under its Energy Conservation Act of 2013 and actively supports and encourages companies to adopt energy efficiency improvement projects.

FLEXIBILITY IS KEY TO CONVERTING POTENTIAL HEADWIND INTO OPPORTUNITIES

The world is facing vital decisions about the energy of tomorrow but it is clear that there is no one size fits all approach. We must recognize that strategies will be different and flexible to take into account the latest climate science, how measures affect one another and acceptability by stakeholders. To date, there is little consensus on what a low carbon world would look like and this is troubling for some.

Greater clarity on the plan of action at the country level and how governments intend to translate aspirational goals into laws and regulations will be important for investors, who seek robust country and sector risk analysis when making decisions. Core climate policies must be backed by a clear long-term commitment by governments and continuous, systematic efforts to support the low carbon transition, giving stakeholders the confidence they need to take long-term decisions.

PARIS RULEBOOK WILL ACCELERATE TRANSITION

The momentum that has brought the Paris Agreement into force at unprecedented speed is clearly welcomed but the Paris Rulebook needs to be developed and adopted urgently if countries wish to deliver a clear process for tackling the global problem. We are hopeful that it will provide the impetus for accelerated action across the world, and prove to be a significant step forward in the global low carbon transition. ●



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