

# **Opening address by Mr Tan Kok Yam, Deputy Secretary, National Climate Change Secretariat, Strategy Group, Prime Minister's Office and Smart National and Digital Government Office, at Green Growth Business Forum 2018, 9 July 2018**

Your Excellency, British High Commissioner, Scott Wightman  
Mr. Nick Bridge, UK Special Representative for Climate Change

Distinguished Guests

Ladies and Gentlemen

A very good afternoon to you, and welcome to the fourth Green Growth & Business Forum (GGBF) jointly organised by Singapore and the UK.

Singapore and the UK have been jointly organising conferences on climate change issues since 2005. The GGBF aims to identify green growth opportunities, showcase leading green businesses, and encourage partnerships in green investments. This fourth edition of the GGBF has been organised in conjunction with the World Cities Summit (WCS), Clean Enviro Summit Singapore (CESS), and the Singapore International Water Week (SIWW). These events are underpinned by the same objectives – to facilitate the sustainable and green development of this region.

## **Green growth should prominently feature in our future economies**

Singapore and the UK share a vision of green growth, as the future engine of progress for economy and city. The UK's 2017 Industrial Strategy White Paper identified the global shift to clean growth as a "Grand Challenge" to prioritise, to position UK at the forefront of the industries of the future. The UK has forecasted that the low carbon economy could grow 11 per cent per year between 2015 and 2030, four times faster than the projected growth of the economy as a whole.

For Singapore, our vision is to be a smart, green and liveable city. Digital innovation by companies, using technologies such as artificial intelligence and IOT, will create new ways for the city to "do more with less" – in other words, give our citizens a high quality living environment in a dense urban landscape, while reducing our footprint on the environment, and our use of resources. And if the solution succeeds in Singapore, it may well succeed elsewhere, and add value to other cities.

## **Government has a role to play**

To realise this future of green growth, governments have a role to play: as regulator, as promoter of research and development (R&D), and as lead user of green solutions.

Carbon Tax

In its role as regulator, Singapore will be implementing carbon pricing in 2019. The carbon tax will provide an economy-wide price signal to encourage companies to take measures to reduce greenhouse gas emissions reductions where it is most cost-effective. Revenue from the carbon tax will be channelled to worthwhile projects which reduce emissions, and help companies improve energy and carbon efficiencies. We believe that carbon pricing will create opportunities for companies to develop solutions in the areas such as clean energy, energy efficiency, and energy management. Our carbon tax can also help to spur more innovation among Singapore-based companies to reduce emissions and to develop green products and services for Southeast Asia and beyond.

### Developing innovative technologies

As a promoter of R&D, Singapore is setting aside up to \$55 million to develop the next generation grid (i.e. "Grid 2.0") under our Research, Innovation and Enterprise 2020 Plan (RIE2020). Grid 2.0 aims to enable the grid to integrate clean energy sources and be more responsive while maintaining grid reliability. Our research will focus on four key areas - (1) power distribution, (2) district cooling and energy system, (3) energy intelligence and management system and (4) modelling and simulation. We hope to work with industry partners and academics to develop capabilities in disruptive, innovative technologies in these areas. Using Singapore as a test-bed, promising demonstrations can be scaled up for large-scale deployment in the region and beyond to achieve an intelligent, integrated energy system of the future.

### Smart and Green Estates

As a lead user, the Singapore Government aims to make use of our unique feature, that 80% of our population lives in public housing, managed by the Government. If we are able to integrate smart and green technologies into our housing estates, we can achieve nation-wide impact. For example, we are deploying solar panels extensively on our housing estate rooftops, making best use of our limited land to capture solar. We are also deploying smart meters to help families monitor and save energy and water.

To stretch the possibilities, we have also designated a newer estate, Punggol Eco-Town, as a "living laboratory" to test new ideas and technologies in sustainable development and integrated urban solutions to create a green living environment. Our Housing Development Board (HDB) will work with government agencies and partners to carry out large-scale test-bedding of new technologies and urban solutions in the areas of energy, waste and water management. LED lighting and elevator regenerative systems, renewable solar energy, water conservation and rainwater harvesting systems, and recycling solutions are some of the technologies and solutions being test-bedded at Punggol Eco-Town. Again, we hope to lower the implementation costs of new technologies and urban solutions, and to replicate them across our towns island-wide.

### **Private sector's involvement will be pivotal**

Although Governments have much to do, the success of green growth will lie on the shoulders of private sector innovation.

Government can set the rules, but it is the private sector that will come up with the solution. For example, ENGIE, a European company, announced in March 2018 that it will invest \$80 million in

Singapore over the next five years to drive regional energy efficiency. More recently, it announced the launch of a platform to control data energy use and improve energy savings. Another company in the same space is Red Dot Analytics (Red Dot), which spun off from Nanyang Technological University. Red Dot has developed an artificial intelligence (AI) based software for real-time energy monitoring and optimisation. Its 3D thermal model has been implemented in various data centres here, helping clients to minimise the data centre's cooling load and save energy. Such innovations by companies like ENGIE and Red Dot will help data centres here meet the data centre green mark standards, which the Government recently launched in 2018.

## Green Financing

One key area that we want greater private sector play is green financing. There is only that much of taxpayers' dollars that can be expended in new infrastructure and green technology deployment. The world will need to rely on green financing to make sustainability, well, financially sustainable. Globally, the need for global investment in climate solutions is estimated at US\$88 trillion (S\$120 trillion) over the next 15 years. This need for investment is especially significant in key Asian economies like China and India.

Singapore is committed to playing a useful role in catalysing sustainable and green finance in the region. We are taking steps to further integrate environmental, social and governance (ESG) indicators in our financial institutions, and to expand the breadth and depth of green finance products in the region.

For example, the Association of Banks in Singapore (ABS) published the Guidelines on Responsible Financing in October 2015. The Monetary Authority of Singapore (MAS) also introduced the Green Bond Grant scheme in June 2017 and the ASEAN Green Bond Standard by the ASEAN Capital Markets Forum in November 2017. This was in response to growing interest in this area. In April 2017, City Developments Limited (CDL) raised S\$100 million worth of green bond. DBS Bank also issued a five-year green bond worth approximately US\$500 million in July 2017. Foreign issuers such as Indian Renewable Energy Development Agency, Manulife Financial Corp and Star Energy Geothermal have also issued and listed green bonds on the Singapore Stock Exchange (SGX).

I hope this GGBF provides a platform to initiate conversations and exchange ideas on ways to seize the next wave of green growth opportunities. I encourage all stakeholders, whether from Singapore, the UK, or elsewhere, to come to us with innovative solutions and bold ideas. We want Singapore to be the place where the proverbial rubber hits the road: let your idea be piloted here, and if it succeeds, may it have the legs to travel far beyond our shores.

On this note, let me wish you an enjoyable and fruitful discussion at GGBF. Thank you.