

## 2018 as Singapore's Year of Climate Action

Melissa Low

### SYNOPSIS

At the United Nations Climate Change Conference (COP23) held in Bonn, Germany from 6-17 November 2017, Singapore's Environment and Water Resources Minister Masagos Zulkifli announced that Singapore will designate 2018 as the Year of Climate Action. The announcement follows a series of climate-related policy changes in 2017 in Singapore, beginning with the carbon tax announcement during Budget in February, followed by enhancements to the Energy Conservation Act passed in Parliament in April. This policy brief provides an analysis of recent policies changes and what 2018 as the Year of Climate Action will mean for Singapore.

### KEY POINTS

- The designation of 2018 as the Year of Climate Action is an opportunity to consolidate the policy changes announced in 2017, and to take stock of the detailed strategies on mitigation and adaptation set out in Singapore's 2016 Climate Action Plan.
- Singapore's carbon tax is set to begin in 2019 as a fixed price credit based system, where covered entities are required to purchase allowances from the regulator and surrender an amount equal to their respective emissions during the compliance period.
- Emissions reporting enhancements will be the cornerstone to climate action, as companies reporting under the Energy Conservation Act now need to have their monitoring plans verified by an independent third party and appoint a GHG manager.
- Singapore as the 2018 Chair of ASEAN will work with fellow ASEAN members and international partners to expand capacity-building and technical exchanges and drive existing work programmes.

### INTRODUCTION

Singapore has announced that it will designate 2018 as the Year of Climate Action. This announcement was made by Environment and Water Resources Minister Masagos Zulkifli at the United Nations Climate Change Conference (COP23) held on Bonn, Germany from 6-17 November 2017. This comes as the world commemorates the 20<sup>th</sup> anniversary of the 1997 Kyoto Protocol and the second anniversary of the adoption of the Paris Agreement on climate change. It also follows a series of climate-related policy changes in Singapore, beginning with the carbon tax announcement during Minister of Finance Heng Swee Keat's Budget speech on 20 February 2017 and enhancements to the Energy Conservation Act (ECA) passed in Parliament on 3 April 2017. They include

strengthening the measurement and reporting requirements for greenhouse gas emissions, requiring companies to undertake regular energy efficiency opportunity assessments, and introducing minimum energy performance standards for common industrial equipment and systems.

At the Bonn event, Minister Masagos also announced that Singapore will join the Ministerial Declaration on Carbon Markets. The declaration, endorsed by 19 countries led by New Zealand at the Paris climate change negotiations in 2015, brings together interested countries to develop standards and guidelines for using market mechanisms that ensure environmental integrity, and avoid any double-counting or double-claiming of emissions reduction units.

As the 2018 Chair of the Association of Southeast Asian Nations (ASEAN), Singapore is also expected to work with the other nine members as well as dialogue partners of the regional bloc to achieve climate objectives.

## ANALYSIS

### *Climate Action Plan as Precursor*

It comes as little surprise that Singapore declared 2018 as the Year of Climate Action. In 2016, the island city-state released its Climate Action Plan, a national strategy to address the increasingly urgent challenges brought about by climate change. The plan represents the most comprehensive national statement by Singapore on climate action since the landmark Paris Agreement was adopted on 12 December 2015 by nearly 200 countries. As of 13 December 2017, 173 out of 197 countries have ratified the Paris Agreement, and 165 countries have submitted their first Nationally Determined Contributions (NDCs), which are at the heart of the Paris Agreement. As part of the Agreement, Singapore committed to reduce its emissions intensity by 36 per cent from 2005 levels by 2030, and to stabilise emissions with the aim of peaking around then.

The Climate Action Plan details strategies on both mitigation and adaptation. On mitigation – that is, reducing Singapore's greenhouse gas emissions and increasing energy efficiency – the government plans to enhance strategies to improve energy efficiency, reduce emissions in sectors such as power generation, and encourage development and deployment of low-carbon technologies such as renewable energy.

### *Carbon Tax to Target Large Emitters*

During the 2017 Budget speech, the government announced that a carbon tax on the direct greenhouse gas emissions of large industrial facilities will be introduced in 2019. This policy announcement is expected to affect between 30 to 40 large emitters mainly from the petroleum refining, chemicals and semiconductor sectors. The six greenhouse gases to be covered under the tax are: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.

A month long public consultation on the plan to introduce the carbon tax was held by the

National Climate Change Secretariat (NCCS) from 20 March to 20 April 2017. A second consultation on the draft Carbon Pricing Bill was held from 31 October to 8 December 2017. The bill is expected to be tabled in Parliament in 2018 and there are currently no formal decisions made on the details of the carbon tax.

The draft Carbon Pricing Bill indicates that the expected form of the carbon tax would be a fixed price credit based system, where covered entities would be required to purchase allowances from the regulator and surrender an amount equal to their respective emissions during the compliance period. Facilities with an annual direct emissions volume of 25,000 tonnes of carbon dioxide-equivalent (tCO<sub>2</sub>e) or above are liable to pay the carbon tax using credits. Facilities will have to register themselves as a taxable facility and submit their annual report on total emissions by 30 June each year and submit their plan for monitoring emission levels to the National Environment Agency (NEA) by 31 December. Facilities with an annual direct emissions volume of 25,000 tCO<sub>2</sub>e or above will also need to register and can only deregister the person-in-charge or facility after the emissions of that facility is equal or less than 2,000 tCO<sub>2</sub>e for three consecutive years. The first carbon tax, which is likely to be between S\$10–20, is expected to be paid in 2020.

The tax will have to be paid by 30 September each year. The NEA will remove the credit from the registry account and the registered person is treated as having paid the tax in relation to the taxable facility, to the extent that the carbon credit is surrendered and removed. If a facility fails to pay the carbon tax, a penalty of 5 per cent in addition to tax will be imposed. Following which, if the tax still remains unpaid, 1 per cent of tax per month will be imposed – up to but not exceeding triple the amount of outstanding tax. Those who intentionally provide inaccurate information in their emissions report to evade taxes can be fined an amount that is triple the evaded sum, on top of a fine capped at S\$10,000, or be jailed up to three years, or both.

According to the draft Carbon Pricing Bill, no refunds of carbon credits will be allowed unless the taxable facility of the registered person is deregistered.

### ***Emissions Reporting Enhancements***

To minimise additional compliance burden on companies, the Carbon Pricing Bill was built on existing procedures and requirements under the ECA.

Under the Carbon Pricing Bill, facilities will be required to submit a verifiable emissions report starting from 1 January 2019 until the day immediately before deregistration. The emissions report will have to be prepared and submitted based on their monitoring plan, of which guidelines were enhanced in April 2017 as part of amendments to the ECA. Now, under the Carbon Pricing Bill, those who emit 2,000 tCO<sub>2</sub>e of GHG emissions or more in a preceding year as a reportable facility, will also have to comply with similar reporting requirements in the ECA. The former threshold for companies was 54 terrajoules of annual energy consumption, but this is now calculated in terms of tCO<sub>2</sub>e.

The ECA enhancements saw the tightening of energy monitoring and reporting requirements for large industrial users of energy, including now having to comply with minimum energy efficiency standards for energy-consuming systems and submitting an enhanced emissions report detailing energy consumption, energy production and GHG emissions. In addition to the requirement of submitting an energy efficiency improvement plan, facilities also need to implement an energy management system and conduct energy efficiency opportunities assessments for new ventures and expansions of existing business. Affected companies must now appoint a GHG manager instead of an Energy Manager. This individual must be a Singapore Certified Energy Manager certified by the Institution of Engineers, Singapore and have at least 3 years' experience in energy management and GHG emissions accounting and in the operational processes and activities of the reportable business.

Under the Carbon Pricing Bill, in order to ensure that companies are reporting accurately, all emissions reports will have to be approved by an independent third party and by the NEA which will serve as registrar. If the report is considered unsatisfactory, the registrar may ask for the report to be revised, rectified, recomputed, re-verified by a third

party and resubmitted. Other key additions are the new powers of the carbon pricing registrar, which can carry out tests, inspections, enter facility at reasonable hours and conduct tests and inspections as the registrar may deem necessary. The registrar may also enter premises to monitor compliance during normal business hours without notice or less than 6 hours' notice, or shorter with consent. It can search the premises, examine activity, things, take photographs, bring assistance to measure and take readings, inspect documents, and even seize them should something appear amiss. The registrar will be entitled at all times to full and free access to documents, computers, computer programmes and software for the purpose of the Carbon Pricing Act. This includes being entitled to information, code, technologies to retransform, unscramble, encrypted data into readable and comprehensible formats or text for purposes of the Act.

### ***Financing Energy Efficiency Improvements***

Companies are able to tap on an array of programmes and incentive schemes to improve their energy efficiency, and to help offset compliance costs related to additional reporting requirements.

The Energy Efficiency Fund (E2F), launched on 3 April 2017, supports efforts by businesses to improve energy efficiency of industrial facilities, particularly if new facilities and expansions include resource efficient designs, and if existing facilities conduct an energy assessment and adopt more energy efficient equipment technologies. Through the E2F, NEA places greater emphasis on improving manufacturing Small and Medium-sized Enterprises' (SMEs) energy efficiency efforts with the support of the Singapore Economic Development Board (EDB). The grant application process has been streamlined so that companies can apply for funding support with minimal paperwork. The NEA also pre-identified a list of energy efficiency retrofit projects in order to simplify the application and processing process.

These government initiatives are not without challenges. First, improving the energy efficiency of the industrial sector – the largest consumer of energy that accounts for 60 per cent of Singapore's greenhouse gas emissions

– is one of the key strategies to reduce emissions and fulfil Singapore's pledge under the Paris Agreement. However, these new regulatory measures and a carbon tax will incur costs that affect industry competitiveness. As a small island state that relies heavily on trade and foreign investment, the Singapore government must pay attention to this and continue to study the optimal mix of policies and technologies to achieve its 2030 commitment, while ensuring that the economy remains competitive. Second, companies may not regard energy efficiency improvements as a priority, and instead regard the new requirements as an additional step for them in maintaining product quality. In ensuring product specifications are met, depending on the feedstock and materials used, more energy could be used to complete the manufacturing process. This is potentially where there could be a misalignment of government policies with business sentiments.

### **Regional Cooperation**

Singapore actively collaborates with regional and international partners to exchange best practices on climate change and sustainable development. Speaking at the official launch of the Year of Climate Action for Singapore on 26 January 2018, Minister Masagos said that it is important for ASEAN to show leadership on climate action. To this end, he announced that Singapore will host a Special ASEAN Ministerial Meeting on Climate Change in Singapore on 10 July 2018, together with back-to-back expanded meetings will also be organised between ASEAN and Ministers from China, Japan, South Korea, as well as the outgoing UNFCCC COP Presidency of Fiji and incoming President-Designate of COP24, Poland, who will host the annual climate change conference this December in Katowice.

The ASEAN Plan of Action for Energy Cooperation 2016-2025 sets out, among other objectives, to reduce energy intensity in the ASEAN region by 20 per cent from 2005 levels by 2020, and to increase the component of renewable energy in the ASEAN energy mix to 23 per cent by 2025. As Chair of ASEAN in 2018, Singapore will work with fellow ASEAN members and international partners to expand capacity-building programmes and technical exchanges to enhance and drive the respective work programmes under various platforms,

including at the 36<sup>th</sup> ASEAN Ministers on Energy Meeting (AMEM) to be held together with the 2018 Singapore International Energy Week, which will take place later this year from 29 October to 2 November.

### **CONCLUSION**

With the new policy changes introduced, much of the responsibility in 2018 will be on local companies to step up and adhere to the enhanced regulations under the ECA and Carbon Pricing Bill. If done satisfactorily and in line with international standards, Singapore will be in a good position to participate in external carbon markets in future. This is important, given that international market mechanisms currently being developed under the Paris Agreement's rulebook is expected to play a significant role in facilitating countries in meeting their climate goals. In addition, Singapore will be looking to deepen ASEAN cooperation to foster a resilient and sustainable energy community among member states and with Dialogue Partners this year.

### **WHAT TO LOOK OUT FOR**

- Tabling of the Carbon Pricing Bill in Parliament in 2018.
- Ability of the business community to adhere to the stricter reporting standards for emissions.
- Progress of ASEAN Member States in meeting their NDCs, and enhanced collaboration and exchange of knowledge to address climate change.

---

*Melissa Low is a Research Fellow at the Energy Studies Institute, National University of Singapore.*

---

*Key words: Singapore, Climate Change, Climate Action, Energy Conservation Act, ASEAN*

The views and opinions expressed in the *ESI Policy Briefs* are those of the authors and do not necessarily represent or reflect the views of the Energy Studies Institute, NUS.

Copyright © 2018 Energy Studies Institute. *ESI Policy Briefs* can be reproduced, provided prior written permission is obtained from ESI, the content is not modified without permission from the author(s), and due credit is given to the author(s) and ESI. Contact: Ms Jan Lui <jan.lui@nus.edu.sg>