



FACTSHEET

UPDATES ON FRONTLOADED WASTE REDUCTION TARGET UNDER SGP 2030 AND MEASURES TO CLOSE THE PACKAGING AND PLASTIC WASTE LOOP

Updates:

- Under the Zero Waste Masterplan, we aim to increase our overall recycling rate to 70 per cent and reduce waste to landfill per capita per day by 30 per cent by 2030. Under the Singapore Green Plan 2030, this goal will be frontloaded to achieve a 20 per cent reduction in waste-to-landfill per capita per day within the next five years (or by 2026)
- To increase the recycling of beverage containers, the National Environment Agency (NEA) will introduce the legislative framework for the Deposit Refund Scheme (DRS) for beverage containers by 2022. A transition period will be provided thereafter before implementation of the DRS system in 2023, to allow time for consumers and industry to adjust, such as to set up the collection and recycling infrastructure.
- As part of Singapore's long-term plans to improve our recycling capabilities and plastic recycling rates, NEA and Shell are jointly studying the feasibility of chemical recycling to treat plastic waste in Singapore. Preliminary findings from NEA and Shell's joint feasibility study indicate that chemical recycling in Singapore is technically feasible and will result in overall carbon savings by diverting plastic waste away from incineration.
- NEA is studying the recommendations by the Citizens' Workgroup on Reducing the Excessive Consumption of Disposables, with a view to co-deliver some of the recommendations with the participants. NEA will provide a response to the Citizens' Workgroup in April 2021.

Background

1 Singapore's Zero Waste Masterplan, launched in 2019, maps our path towards a Zero Waste Nation. It sets out national waste targets to: (i) achieve a 70 per cent overall recycling rate; and (ii) reduce the amount of waste sent to Semakau Landfill (SL) per capita per day by 30 per cent by 2030. Under the Singapore Green Plan 2030, our goal is to frontload our efforts and achieve a 20 per cent reduction in waste-to-landfill per capita per day within the next five years (or by 2026). Our efforts to close the waste loops of our three priority waste streams - e-waste, packaging waste including plastics, and food waste - will allow us to achieve our national waste targets, and help extend the lifespan of SL beyond 2035.

2 During the Committee of Supply (COS) Debate 2020, MSE announced a suite of measures to support Singapore's transition to a circular economy to meet our waste targets.

3 A key measure is the DRS for beverage containers, which will be implemented as the first phase of the Extended Producer Responsibility (EPR) scheme for managing packaging waste, which includes plastics. We are also building up Singapore's recycling capabilities to close our plastic loop locally. For example, NEA is working with industry partners to explore establishing a pilot pyrolysis plant that will help anchor the chemical recycling value chain in

Singapore within the next few years. NEA is also looking at developing a pilot plastic recovery facility, which would recover more recyclable plastic waste from general waste, and help to further improve our overall recycling rates. To tackle the excessive use of disposables, including single-use plastics, NEA had convened the Citizens' Workgroup on Reducing Excessive Consumption of Disposables from September 2020 to January 2021. The intention of the Workgroup is to co-create inclusive solutions with the citizens that will work for Singapore.

4 NEA is striving to advance and accelerate our nation's journey towards zero waste, while managing the costs to consumers and businesses. The shift from a linear economy to a circular one, where we reduce the use of resources and keep products and materials in use for as long as possible, will contribute to our efforts to build a more sustainable and resilient Singapore.

Developing a legislative framework for the Deposit Refund Scheme (DRS) for beverage containers

5 Packaging waste, including plastics, is one of our priority waste streams as it accounts for about one-third of domestic waste disposed of. To this end, NEA will introduce the legislative framework for DRS for beverage containers by 2022 as part of our sustainability agenda. There will be a transition period for the industry before implementation of the DRS system in 2023, to allow consumers and industry to adjust and make the necessary preparations, such as the setting up of the collection and recycling infrastructure for beverage containers.

6 NEA has been engaging the community and industry to develop the DRS framework, such as through surveys and Requests-for-Information. There was useful feedback provided on various parameters of the DRS framework, such as the management of the Producer Responsibility Scheme (PRS) Operator, coverage of containers and beverages, and the collection network. We will take this feedback into consideration in the development of the DRS framework. We will continue to consult stakeholders, including the public and industry, in the coming months. We welcome stakeholders to share their views and work with us in shaping the DRS framework, as we consider how best to design a system that is cost-effective and suitable for Singapore.

Prelim findings indicate that chemical recycling of plastic waste in Singapore is technically feasible with potential carbon savings

7 Since September last year, NEA and Shell have been working on a joint feasibility study on chemical recycling solutions in Singapore. Preliminary findings from the study indicate that chemical recycling in Singapore is technically feasible, as the composition of polymer types in domestic waste is suitable for pyrolysis technology to be deployed. Chemical recycling can help to close the plastic waste loop in Singapore as it is able to treat contaminated plastic waste, which cannot be mechanically recycled, into higher-value products such as pyrolysis oil which can then be used to manufacture new plastic products.

8 Preliminary findings from the joint feasibility study also show that we can reap carbon savings from using waste plastic to produce pyrolysis oil as feedstock for chemical plants, compared to using crude oil-based feedstock. The carbon savings is derived primarily from the diversion of plastic waste from incineration. The production of new plastic products from pyrolysis oil would "lock in" the carbon in the products, keeping it within the economy for as long as possible.

9 Besides the joint feasibility study, NEA is concurrently conducting a consultancy study on a pilot plastic recovery facility (PRF). The PRF is critical in anchoring the chemical recycling

value chain in Singapore as it will recover the plastic waste from general waste to be used as feedstock for chemical recycling. The study will identify the technologies and equipment required to recover up to 72,000 tonnes of plastic waste per year for recycling. This will help to improve our overall recycling rate, especially for plastics, and is part of our longer-term circular approach towards resource management.

NEA to respond to the Citizens' Workgroup recommendations

10 The Citizens' Workgroup on Reducing the Excessive Consumption of Disposables, which was convened in September 2020, concluded its discussions in January 2021. The Workgroup provided a wide range of recommendations, from policy interventions such as a mandatory carrier bag charge, to incorporating education on sustainability into our students' curricula, as well as behavioural nudges such as introducing visual cues to remind residents to bring reusables or to choose products with less packaging in supermarkets. NEA is reviewing the recommendations, with a view to co-delivering some of the recommendations with the participants and 3P sectors. NEA will provide a response to the Citizens' Workgroup in April 2021, which will also be made available on the Clean and Green Singapore website.

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