### Energy Policy Model POLICY SOLUTIONS

#### CN: Hong Kong V Learn more Sign in

#### What Are the Best Policies to Solve Climate Change?

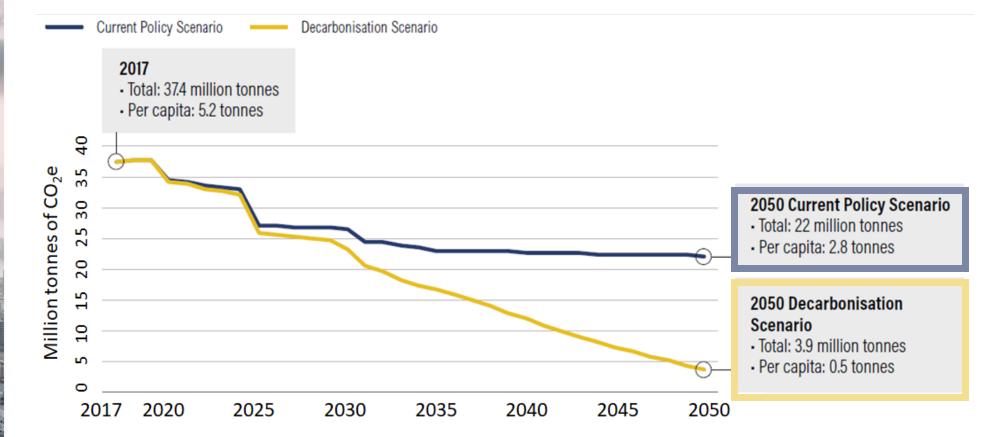
Designing energy policy correctly is tough work. Welldesigned energy policies reduce pollution, cut consumer costs, and minimize dependence on foreign energy supplies. Done wrong, they can do the reverse, and increase pollution, lock in dirty technologies, or waste money.

Which energy policies can lower greenhouse gas emissions in Hong Kong, and what will it cost? Discover the effects of various energy policies, build your favorite policy package, and share it with friends using the Energy Policy Simulator. Try it using the button below:

**Enter Simulator** 

#### https://hongkong.energypolicy.solutions/

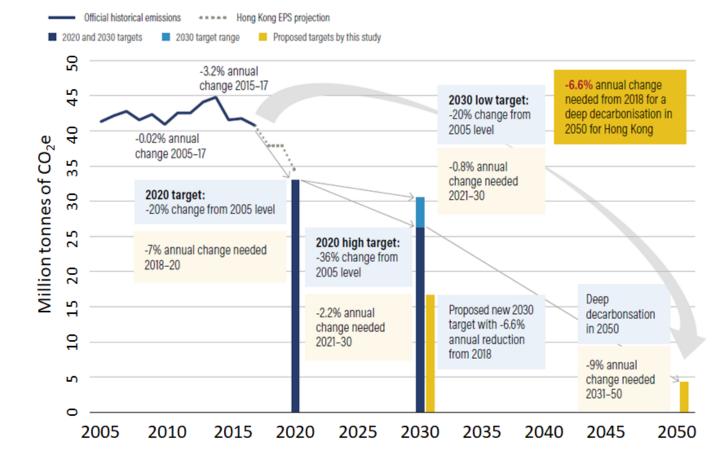
### Hong Kong has high potential to achieve net-zero emissions by 2050



*Note*: Significant drops in 2024–25 and 2030–31 reflect the retirement of coal-fired power plants. Emissions include energy and industrial processes; waste and land use change and forestry are excluded.

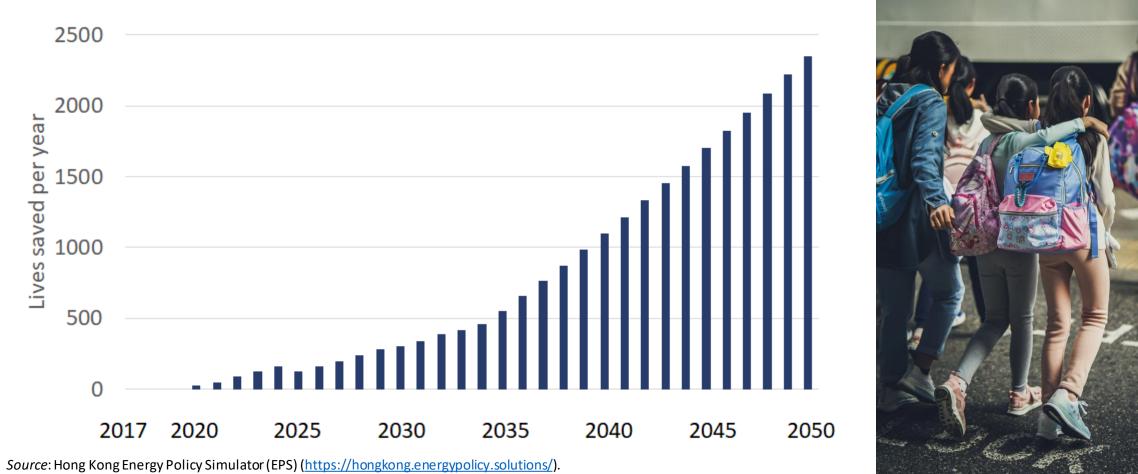
Source: Hong Kong Energy Policy Simulator (EPS) (https://hongkong.energypolicy.solutions/).

Every day of delay makes the necessary cuts steeper and more difficult. Ambitious emissionsreduction trajectories will be necessary to make net-zero emissions a reality

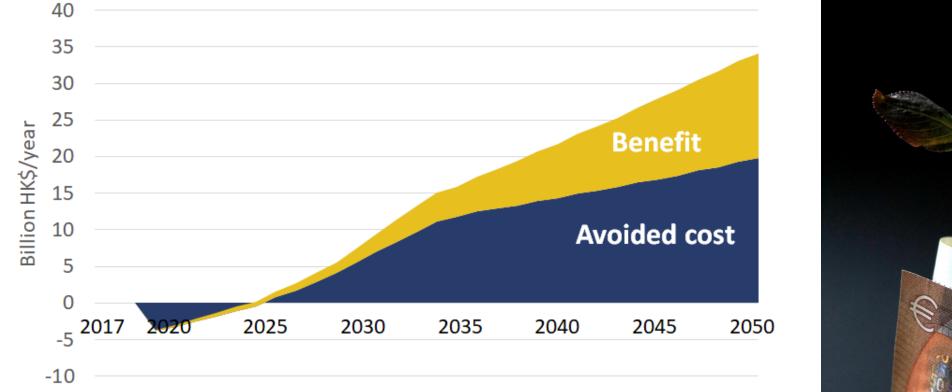


Source: 2005–17 emissions data are from EPD (2019); 2017 emission data are the most updated official information; 2018–19 emissions are from the Hong Kong Energy Policy Simulator (EPS); 2020 and 2030 emissions are calculated based on Hong Kong's carbon-intensity targets; 2050 emission data are from the Hong Kong EPS.

## Achieving the reduction targets will increase life expectancy, saving about 26,000 lives between 2018 and 2050



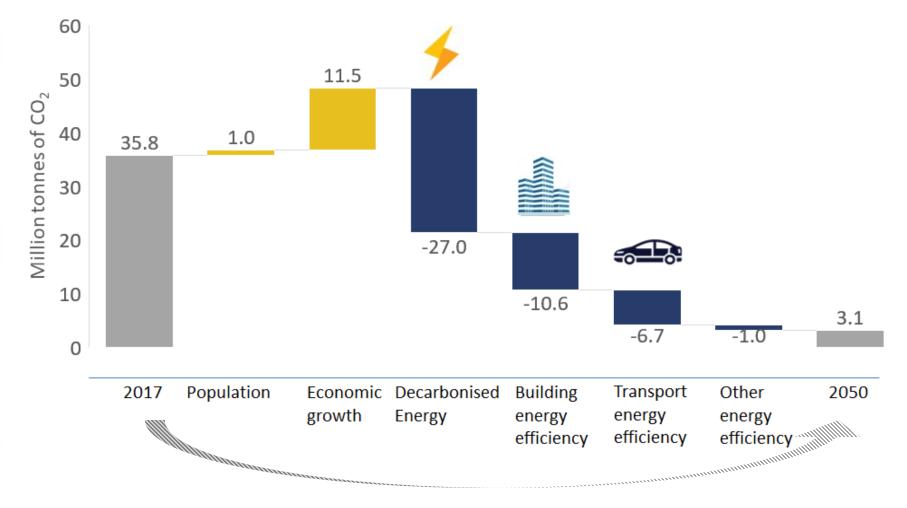
### Acting now would yield HK\$460 billion of new wealth



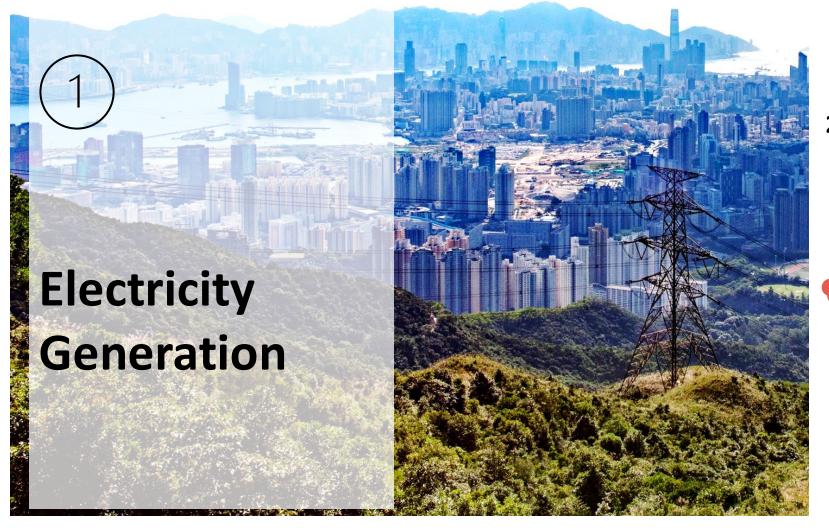
*Note*: Estimates of the reduction in health damage include only the monetary benefits of reducing mortality. Other benefits, such as avoided hospitalization and health care costs and reduced sick leave, are not included. *Source*: Hong Kong Energy Policy Simulator (EPS) (<u>https://hongkong.energypolicy.solutions/</u>).



### Where is the emissions-reduction potential, and what is this study proposing?



*Note*: "Other" includes reductions in emission by industry (including from energy efficiency and fuel switch), increased energy efficiency in gas-fired electricity generation, transport demand control, increased use of public transport and worker training, among other factors. *Source*: Data from the Hong Kong Energy Policy Simulator (EPS) (<u>https://hongkong.energypolicy.solutions/</u>).



#### 2017 Baseline



44Twh

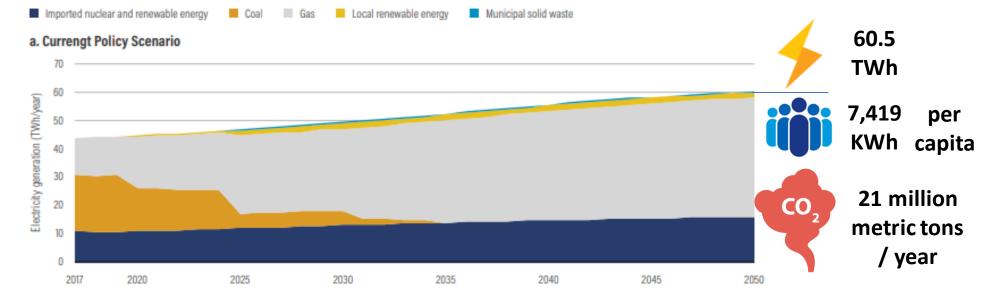
**Electricity Generation** 



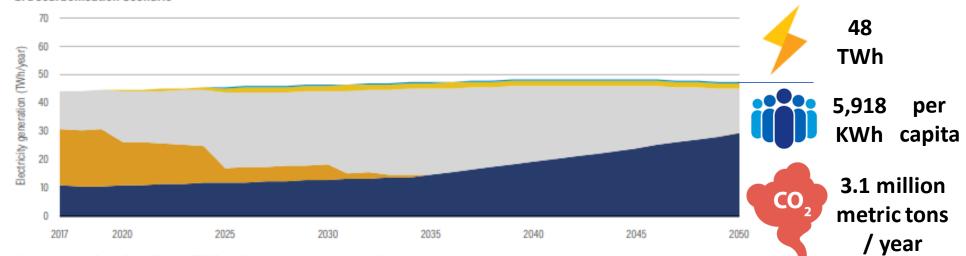
27 million tonnes of CO2<sub>e</sub>

HK's total carbon emissions

### **Our Projection**



#### b. Decarbonisation Scenario



Source: Hong Kong Energy Policy Simulator (EPS) (https://hongkong.energypolicy.solutions/).



### **Key Policy Recommendations**

Local-level

**4**% Develop Local Renewable Energy



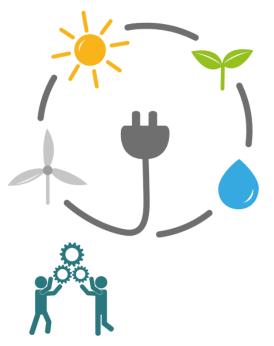
33%

Explore Natural Gas with Carbon Capture and Storage (CCS) or near zero-carbon hydrogen



#### Regional-level

Regional collaboration 62% regional Renewable Energy or nuclear projects



5.34

Mt

5.15 <sub>Mt</sub> Emission Reduction Potential



#### 2017 Baseline





**24** million tonnes of CO2<sub>e</sub>



Commercial 66%

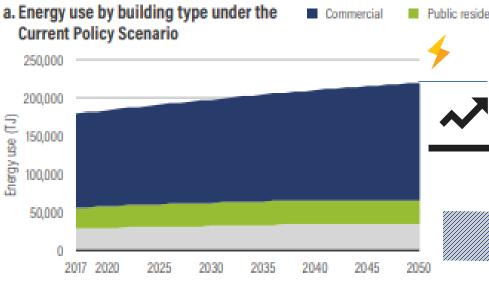


Residential 27%

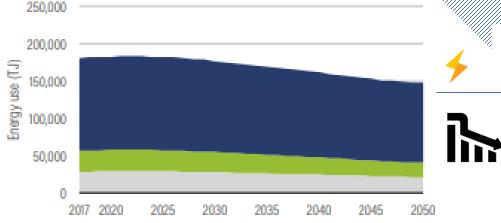


Industrial & Others 7%

### **Our Projection**



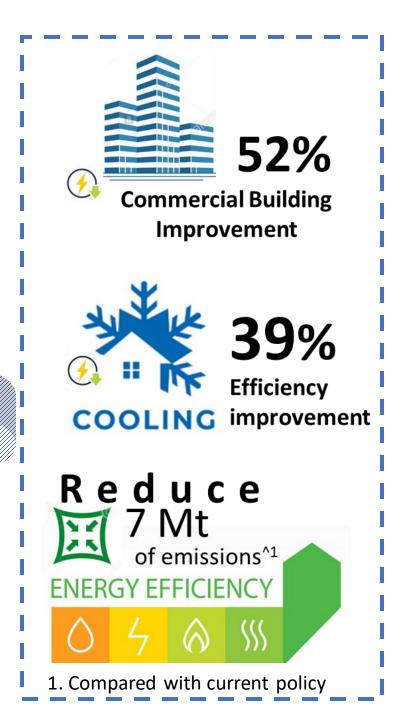
#### b. Energy use by building type under the Decarbonisation Scenario

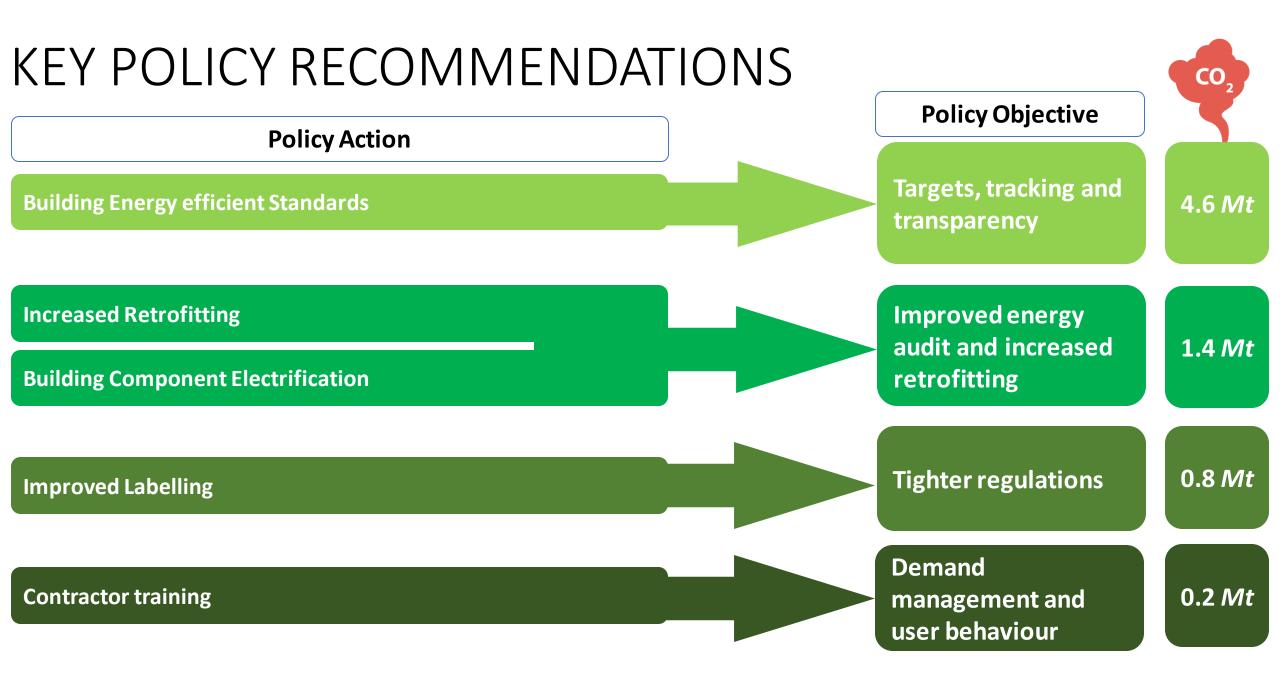


Public residential Private residential 219,881 TJ

21%

148,469 TJ 20 %

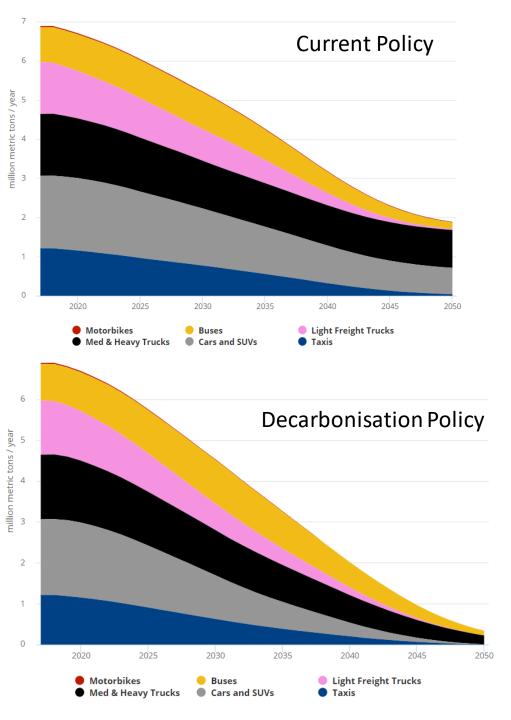


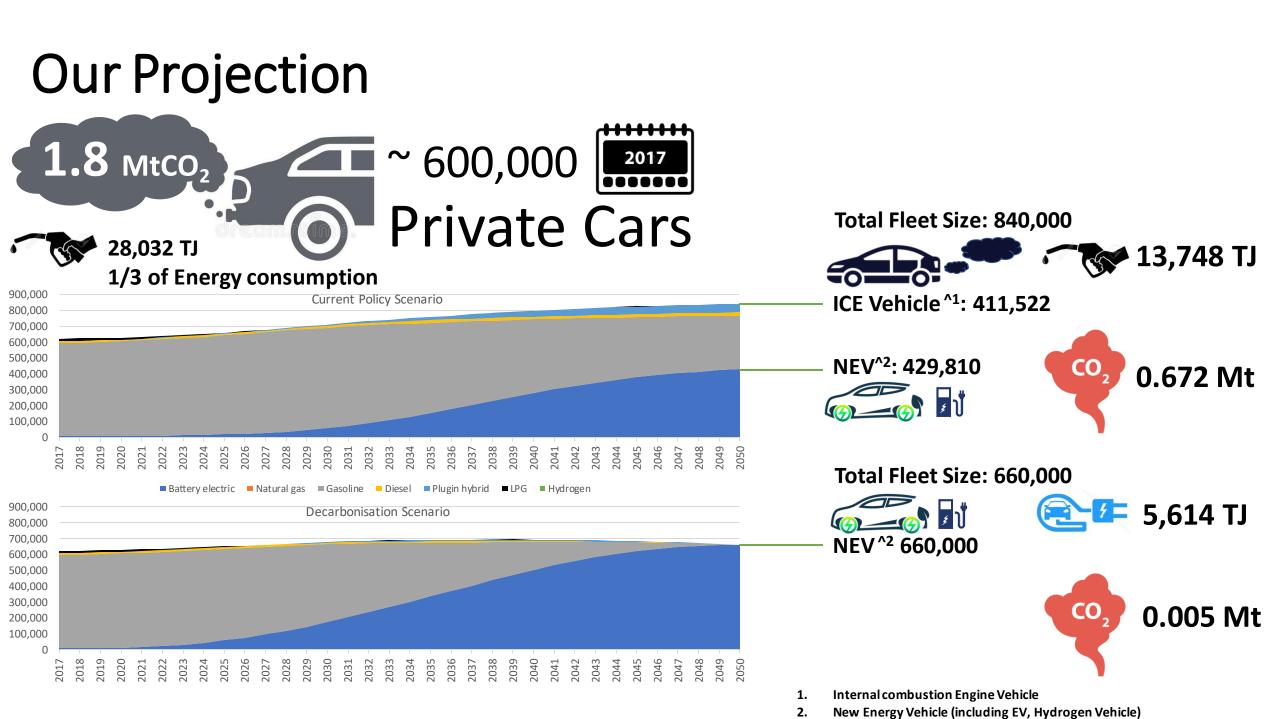




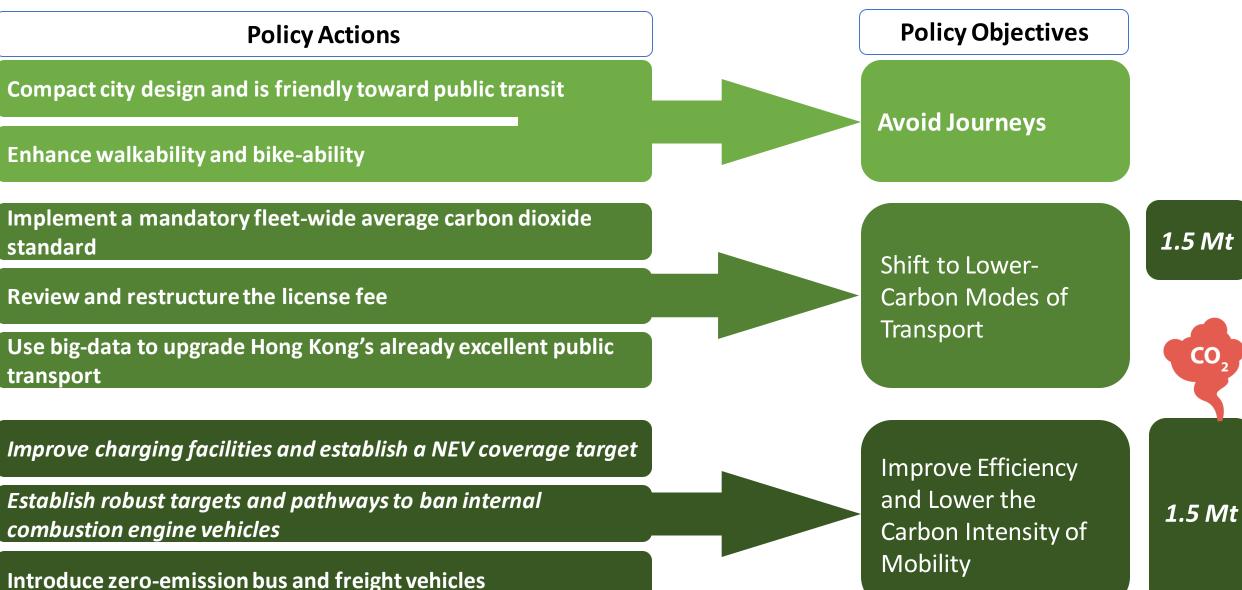
### **Our Projection**

	<b>Current Policy</b>	Decarbonisation Policy
Emission (Mt)	1.9	0.37
Emission reduction (%)	73	95
Energy consumption (TJ)	Total: 43,137 NEV: 15,593	Total: 32,967 NEV: 17,779
New energy vehicle (%)	37	85
Energy efficiency improvement (%)	57	67





### **Key Policy Recommendations**



Opportunities for More Ambitious Climate Actions 為了我們的未來

# 塑造我們

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