

## Climate Change Transition Risk - Regulatory Change Risk

1. Based on the scenario proposed by the International Energy Agency (IEA) to achieve net-zero emissions by 2050, the recommended proportionation of renewable energy are 29% in 2020, 60% in 2030, and 90% in 2050. Assuming proportional growth of renewable energy between 2020 and 2030, the proportionation of renewable energy used in 2025 would be  $(29\% + 60\%)/2 = 44.5\%$ .
2. Assuming that government pathway to net-zero emissions follows the IEA scenario and requires Chunghwa Telecom to comply with the regulations, Chunghwa Telecom would need to utilize 671.55 million kilowatt-hours of renewable energy in 2025 (assuming the electricity consumption in 2025 remains the same as in 2020, which is 1,509.09 million kilowatt-hours, and renewable energy accounted for 44.5%), and considering the real cost of purchasing green energy at NT\$ 2.1542 kilowatt-hours per unit). Therefore, Chunghwa Telecom would need to increase its operational costs by approximately NT\$ 1.447 billion to comply with the national regulations.
  - (1) Renewable energy expected to be used in 2025:  $1,509,090,000 \text{ kWh} * 44.5\% = 671,550,000 \text{ kWh}$
  - (2) The expected increase in operating costs in 2025:  $\text{NT\$ } 2.1542 \text{ yuan/kWh} * 671.55 \text{ million kWh} = \text{NT\$ } 1.447 \text{ billion}$