



Press release

Standard Chartered and World Resources Institute report: USD1.84 trillion investment needed to achieve carbon neutrality in Greater Bay Area by 2060

27 April 2023, Hong Kong – Standard Chartered and World Resources Institute (“WRI”)

today jointly published the report titled **“GBA decarbonisation pathways and how finance can help to accelerate business to transition”¹** (“the report”), which analyses the low-carbon transition of three key energy consuming sectors – manufacturing, road transport, and buildings industries – in the Guangdong-Hong Kong-Macao Greater Bay Area (“GBA”). The report also offers recommendations on how the finance industry can help accelerate the region’s decarbonisation from a policy and financial perspective. To achieve carbon neutrality by 2060, the report estimates that the GBA would need an additional investment of USD1.84 trillion.

According to the report, keeping to the current carbon intensity reduction target as outlined during the 13th Five-Year Period will enable the GBA to achieve peak carbon emissions by 2030 but 355 million tonnes of CO₂ emissions will remain to be offset in 2060. Over the long-term, clean electrification has the greatest potential for emissions reduction across the major energy consumption sectors – manufacturing industries, road transport and buildings. In the mid-term, improvements in energy efficiency, the use of cleaner energies in the manufacturing industries and buildings sectors, and transport mode shifting will play the most critical roles in decarbonisation.

The report analyses different carbon emission scenarios and decarbonisation outlook for these three significant industries in the GBA:

¹ The report is co-launched by Standard Chartered and World Resources Institute, with the support and participation of Civic Exchange, Hong Kong Green Finance Association, Guangdong-Hong Kong-Macao Greater Bay Area Green Finance Alliance, International Institute of Green Finance of Central University of Finance and Economics, Guangdong University of Technology, Sun Yat-Sen University, and China Quality Certification Center Guangzhou Branch.

- **Manufacturing industries** generated 146 million tonnes of emissions in 2020. Decarbonised power and heating systems, as well as phasing down fossil fuels in production, will play the biggest roles in decarbonising the industry.
- **Road transport** sector generated 91.5 million tonnes of emissions in 2020. Private cars, and both light and heavy-duty trucks, are the main sources of carbon emissions across the industry in the GBA. Transport mode shift, which may include enhancing public transit services and shifting from road transport to railways and ships, has the greatest potential to reduce carbon emissions in the short term (by 2030). Meanwhile, the promotion of new energy vehicles, including both electric and hydrogen fuel cell vehicles, is expected to have the biggest impact in the mid-to-long term.
- **Buildings** sector generated 143 million tonnes of emissions in 2020, of which 89% is related to indirect emissions from electricity generation. While improvements in energy efficiency will play a key role in the short term, decarbonised electricity is expected to offer the largest reduction in emissions over the long term.

In addition, the report highlights how the financial sector can play a pivotal role in accelerating decarbonisation within the GBA, especially in providing sustainability-linked and transition financing for the key carbon-intensive industries such as petrochemical, transportation and buildings. It provides a list of recommendations detailing how the GBA can leverage its connectivity to local and overseas markets in a way that will unleash the enormous potential of the financial sector to facilitate the region's low-carbon transition. These recommendations include:

1. Establishing a cross-regional agency coordination mechanism that focuses on financing decarbonisation in the GBA;
2. Facilitating interoperability between the Common Ground Taxonomy, transition finance taxonomies and information disclosure standards in Mainland China and Hong Kong as well as internationally;
3. Encouraging the GBA's financial institutions and enterprises to set up net-zero targets;
4. Facilitating the development of regional carbon market to accelerate the GBA's transition;
5. Developing industry-specific financial solutions for the key sectors in the GBA; and
6. Developing a transition-related financial toolbox to scale up financing.

Anthony Lin, Chief Executive Officer, Greater Bay Area, Standard Chartered, said, "The Guangdong-Hong Kong-Macao Greater Bay Area's world-class urban and industrial clusters as well as financial centres give the region a unique advantage in becoming a global sustainable financial centre. Standard Chartered will continue to work with all stakeholders to build the GBA

into a pioneering hub for innovating sustainable financial tools, mobilising green and transition investments and aligning with international standards. This will accelerate the low-carbon transition of the manufacturing, buildings and transport industries in the GBA and play a leading role in China achieving carbon neutrality.”

Dr Wee Kean Fong, Deputy Country Director of WRI China, added, “Solutions sometimes lie where the problems are. It would be more direct and efficient if we could find solutions for accelerating the GBA’s transition within the area. This study identified the industries that require the most urgent emissions reduction, the area’s most prominent strengths, and matched them with each other to turn constraints into potential. We believe that through active collaboration with various parties, the GBA can attract more investment flows to support its transformation, create a safe and fair environment, provide fertile soil and innovation space for further deployment of decarbonisation financial tools, accelerating its journey towards net zero.”

Tracy Wong Harris, Head of Sustainable Finance, Asia, Standard Chartered, said, “Cross-boundary green finance in the GBA has been growing in scale in recent years as China continues to open up its financial markets. In order to achieve carbon neutrality by 30/60, the GBA will need to aggressively expand beyond green financing, to include transition financing, sustainability-linked loans and enhanced regional carbon markets. We hope that this report will help corporates, financial institutions and policy makers to work more closely together to accelerate decarbonisation in the GBA, as well as serve as a reference for how transition finance can help the region achieve its ‘dual carbon’ goals.”

Based on publicly available data from the nine municipalities and two special administrative regions in the GBA, this report evaluates the energy consumption and carbon emissions of three significant industries in the region. Through an analysis of current and future policy plans between 2020 and 2060, the report also provides a decarbonisation outlook for each of these industries.

For more information about the report, please visit: <https://wri.org.cn/en/research/Decarbonization-pathways-GBA>

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