The Story of Carbon Pricing in China

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Major deficiencies of current policy to address climate change in China

- There is a lack of *a primary carbon pricing policy* program for addressing climate change;
- Market-based energy policy: Too much reliance on subsidy
  - Public finance sustainability
  - Cost-effectiveness
  - Fairness/equity
- Command-and-control policy: deficiencies in implementing energy performance standards
  - *Inadequate MRV*
  - *Insufficient punishment for non-compliance*

The reasons for choosing ETS in China

- Uncertainties of Carbon Tax in emissions reduction;
- It is politically impossible to introduce a Carbon Tax which is higher than US$10/t;
- The institutional barrier to using the revenue from Carbon Tax for mitigating CO2 emissions
- Longer legislation process for Carbon Tax
- Relatively lower administrative cost for the Government to regulate around 7500 largest emitters in power and industry sector contributing to half of China's total CO2 emissions.

China's national ETS: an overview

- Coverage
  - 8 sectors covering the power sector and the main manufacturers
    - electricity/heat, iron & steel, non-ferrous metal, construction material, petrochemical engineering, chemical engineering, and civil aviation.
  - Emission: *direct emissions* from the burning of the fossil fuels and *indirect emissions* associated with the uses of electricity and heat
- Threshold for participation
  - 26000 tons CO2 emissions per year
  - Number of entities covered: approximately *7500*
- Total emissions (direct): *4.5 billion tons* or a half of China's total energy-related emissions
- Cap-setting approach: A hybrid of the top-down approach and the bottom-up approach
- Allowance allocation methods
  - Primary allocation method: *Output-based free allocation*
  - *Auction* is to be encouraged.

China's national ETS is essentially a multi-region and multi-sector tradeable performance standard (TPS)

$$\mathrm{CAP} = \sum_{i=1}^{M} \sum_{j=1}^{N} S_j \times Q_{ij}$$

Where

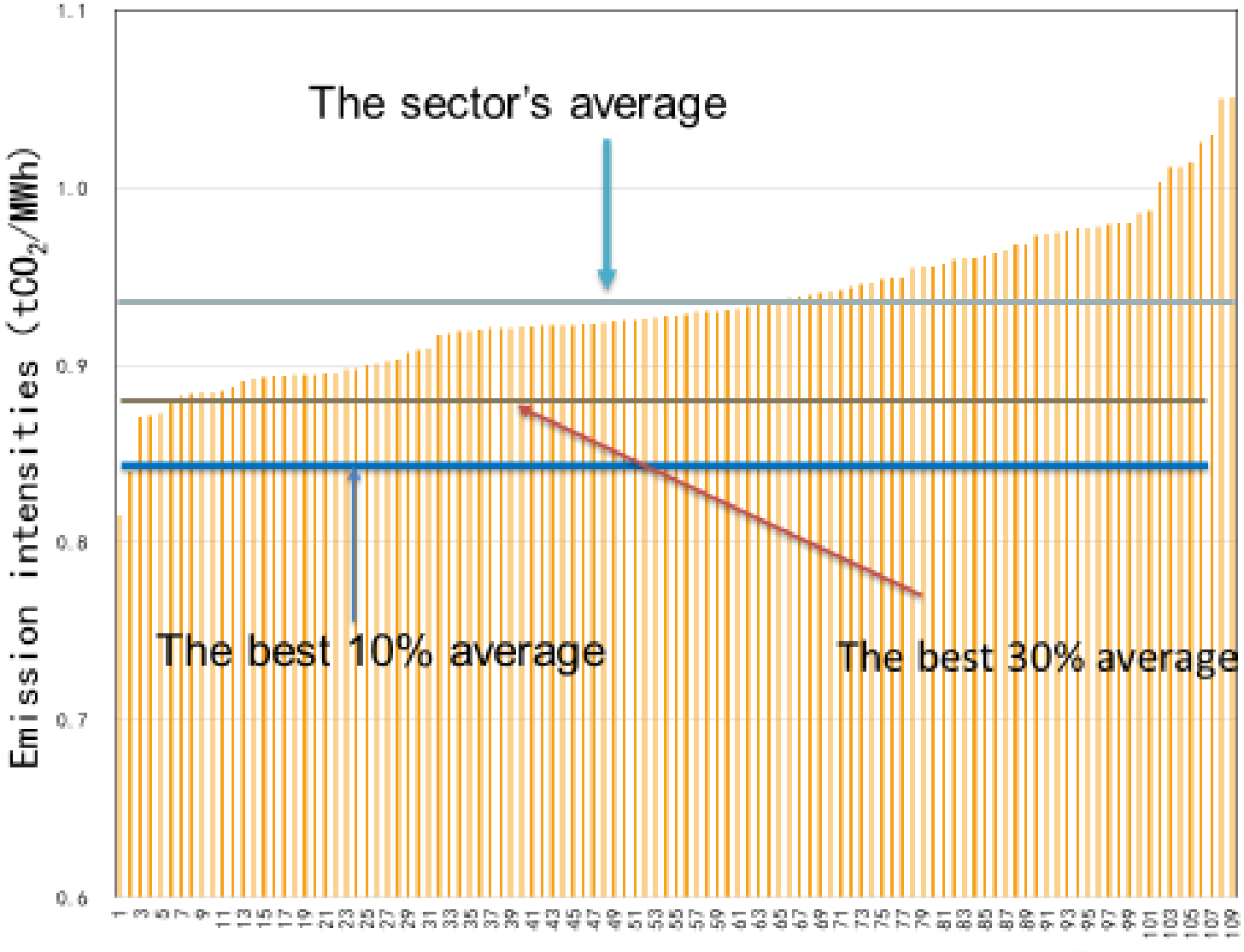
S_j— The national emission performance standard for sector j;

Q_{ij}— The actual physical output of sector j in province i;

M — The number of the provinces and/or cities covered by ETS; and

N — The number of the sectors covered by ETS.

Example: the approach for setting a sectoral benchmark or performance standard



An outlook of carbon pricing in China

- ETS for large stationary emitters
- Carbon tax for those sectors and emitters which are not covered by ETS, such as transport and commercial buildings;
- The carbon price under the national carbon market will also lay a foundation for introducing a sufficiently high carbon tax for those sectors

Thank you for your attention.

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