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Scope, coverage and Cap setting: Experiences from China

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Scope and coverage: overview

2020-	Threshold
Power generation around 1,800 entities	Annual emission above 26,000 ton of CO2e (2013-2018)
Captive power plants around 200 entities	

When well-prepared

Power generation	Captive power plants	Petrochemical	
Chemical	Building materials	Iron and steel	TBD
Non-ferrous metal	Paper making	Civil aviation	

Scope and coverage: key factors considered

- Amount of GHG emission: secure high-emission sectors
- Diversity of GHG emitters: create the supply and demand of market
- Potential of GHG emission reduction: space of reduction activity
- Weightiness in economy: take leading role towards low carbon transition
- Existing fundamental capacity: easier landing of ETS policies
- Competitiveness of sectors: not result in carbon leakage
- Harmonisation with other industrial policies: reduce the administrative cost

Scope and coverage: why power sector beforehand

- **The largest emitter**
  Coal-fired power plants account for 1/3 in the total CO2 emission of primary energy consumption

- **Stronger capacity on management and operation compared to other sectors**
  More than 96 generators with the capacity over 1MW; around 80% generators with the capacity over 0.3MW

- **Obvious achievement in GHG emission reduction**
  7.6 billion tons of CO2 reduction from 2006-2015

- **Well-established data collection and monitoring system**
  Long-period consecutive database on production

- **Frontline experiences in pilot ETS**
  Power sector are overwhelmingly covered by all pilot ETS

Scope and coverage: next step

Timeline to cover all sectors

Entity level or installation level

Pilot coverage vs national coverage

Non-CO2 GHG emission

Cap setting: bottom-up approach

01

Scope

The coverage is the boundary of cap calculation

02

Methodology to allocate allowance

Study and formulate the sectoral allowance allocation methodologies

03

Calculation of allowance

Account the amount of allowance to be allocated on entities, and accumulate the amount of allowance at regional or national level

04

Rectification of allowance

Rectify the amount of allowance based on the overall objective of region or state

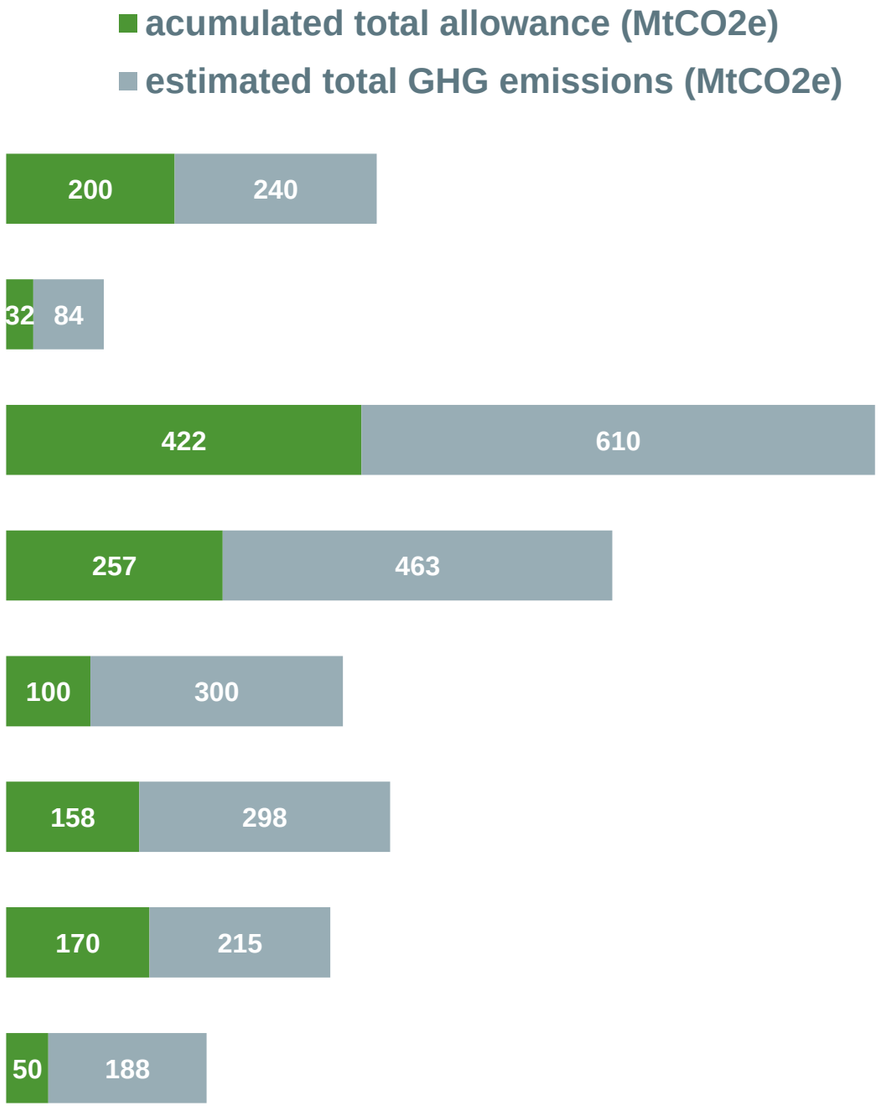
05

Cross-check with climate change target

As reference for assessment of regional or national GHG emission intensity reduction target

Cap setting: practice in pilot ETS

Pilots	Composition of allowance
Fujian	Allocated allowance + governmental reserve allowance
Shenzhen	Allocated allowance + governmental reserve allowance + auctioned allowance
Guangdong	Allocated allowance + governmental reserve allowance + auctioned allowance
Hubei	Allocated allowance + governmental reserve allowance
Chongqing	Applied and allocated allowance
Shanghai	Allocated allowance
Tianjin	Allocated allowance
Beijing	Allocated allowance + governmental reserve allowance



Data source: ICAP ‘EMISSIONS TRADING WORLDWIDE 2019’

Cap setting: lessons learned from pilots

- Bottom-up is easier to be accepted than top-down
- Regional carbon intensity target and macro economy programme are both key reference
- Credibility of historical GHG emission data provides the good basis for cap setting
- Overall adjustment of government plays critical role
- The attitude of key stakeholders towards ‘cap’ is gradually changing in a positive way
- Even proportional cap will contribute a lot to the GHG emission reduction given the well-operated scheme

Cap setting: challenges and accommodations

Challenges	Accommodations
Connection with NDC target: lack of in-depth study	• Invite national think-tanks to conduct related studies • Establish assessment indicators for ETS • Refer to NDC target when decide on the cap
Acceptance on the introduction of ‘CAP’ in developing country: still apparent concerns on the impact on economical increase	• Started from bottom-up approach • Reinforce the role of climate change in the agenda of policy-makers • Introduction of carbon pricing policies • Protection measures for vulnerable industries
Credibility of GHG emission data has to be continually improved	• Enhance basic data accounting and monitoring capability • Formulate strict national standards for GHG emission MRV • Speed up the update of GHG emission data

Thanks for your attentions!

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