



The Development and Characteristic of Hubei ETS Pilot

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OUTLINE

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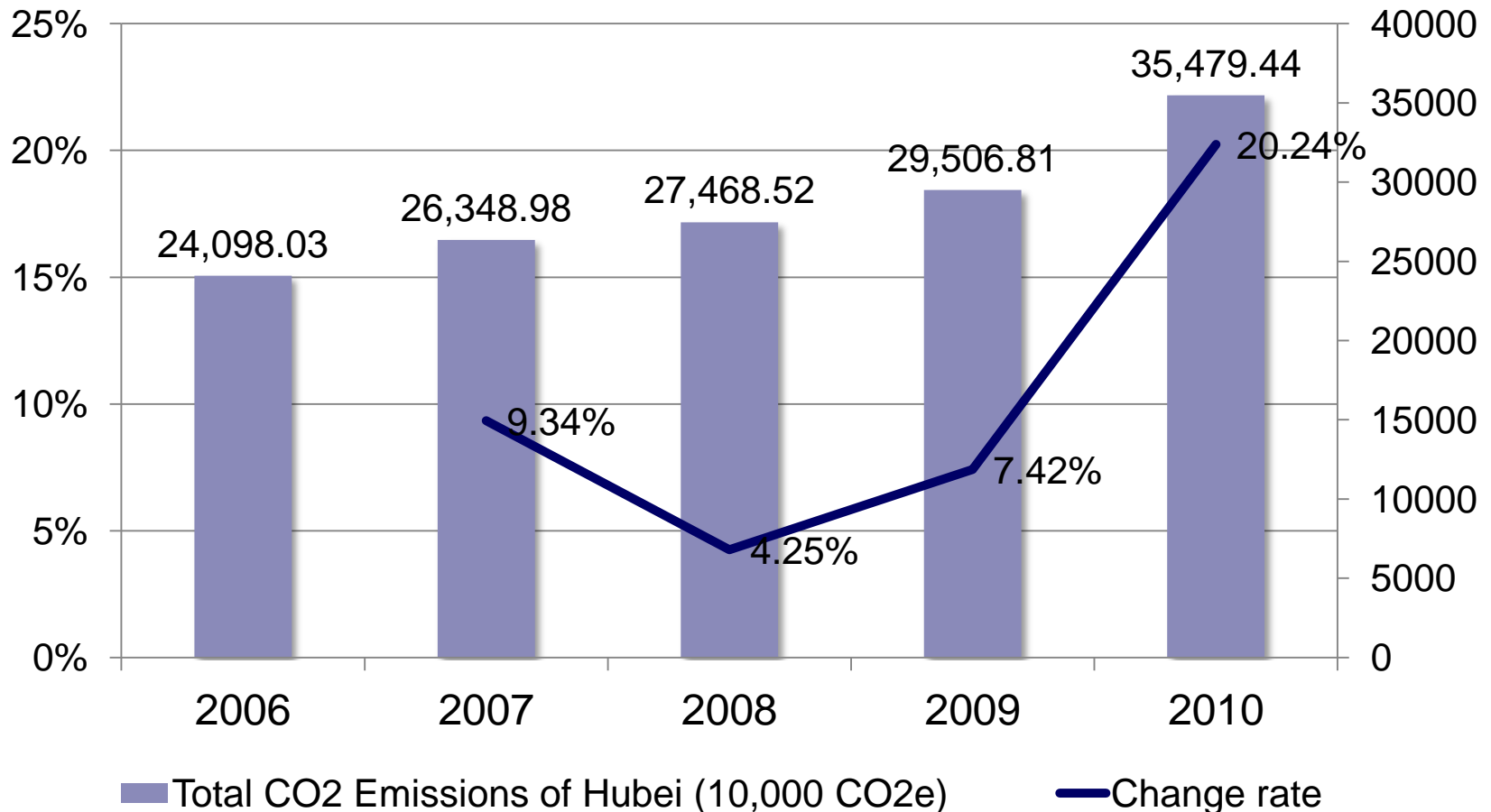
Background

- The only one ETS pilot in the middle and west region
- The significance for the national ETS, especially for the middle and west regions.
 - Basic condition and ability
 - Economic developing stage
 - Industry structure
 - Understanding degree,
 - Difference of region within the province,
 - Multi-level of administration

GHGs Controlled

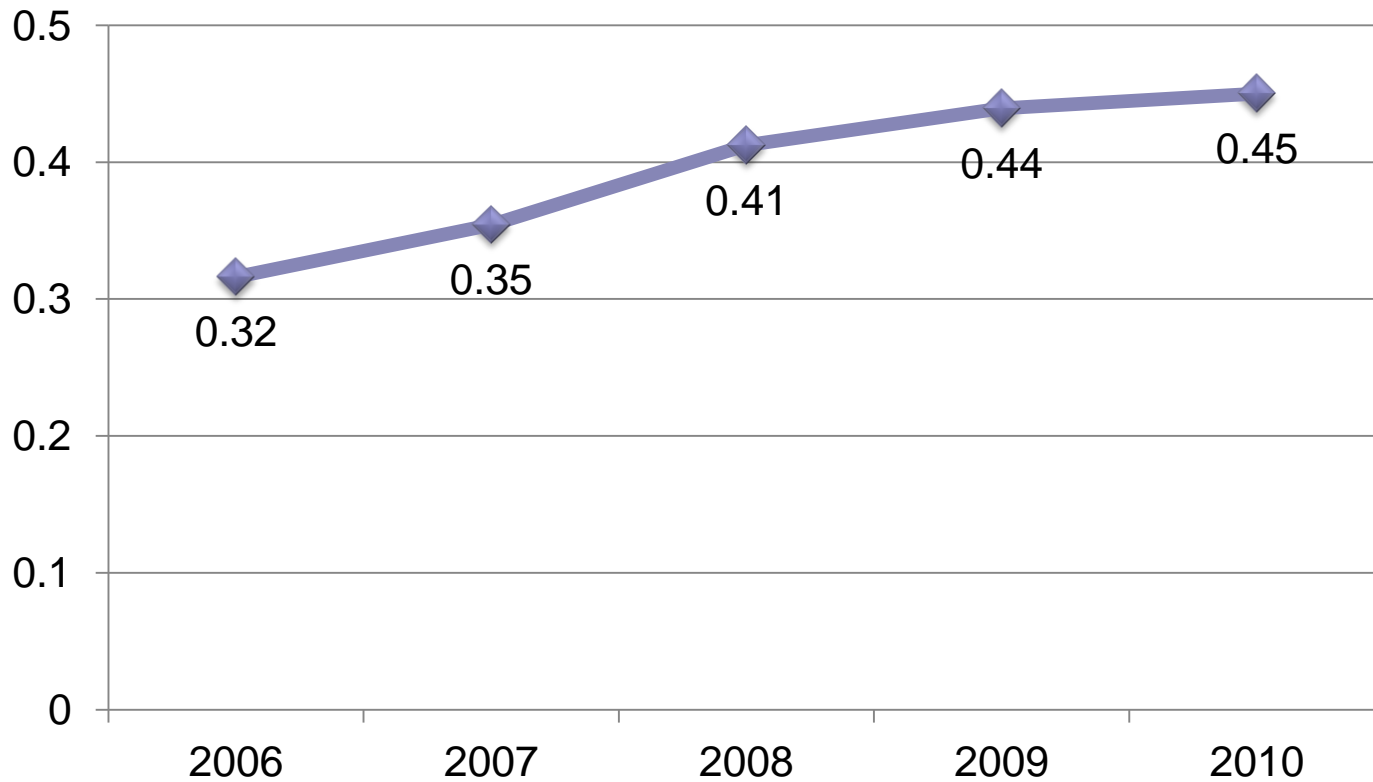
- Focus on CO₂ during the pilot period
 - Simple
 - Major GHGs
 - Early ETS stage
 - Easy collection and calculation of data

CO₂ Emissions and Change Rate in Hubei (2006 – 2010)



Carbon Productivity Change Rate (2006 – 2010)

Unit: 100 million RMB/10000 tons



◆ Carbon Productivity (million Yuan/10,000 tons)

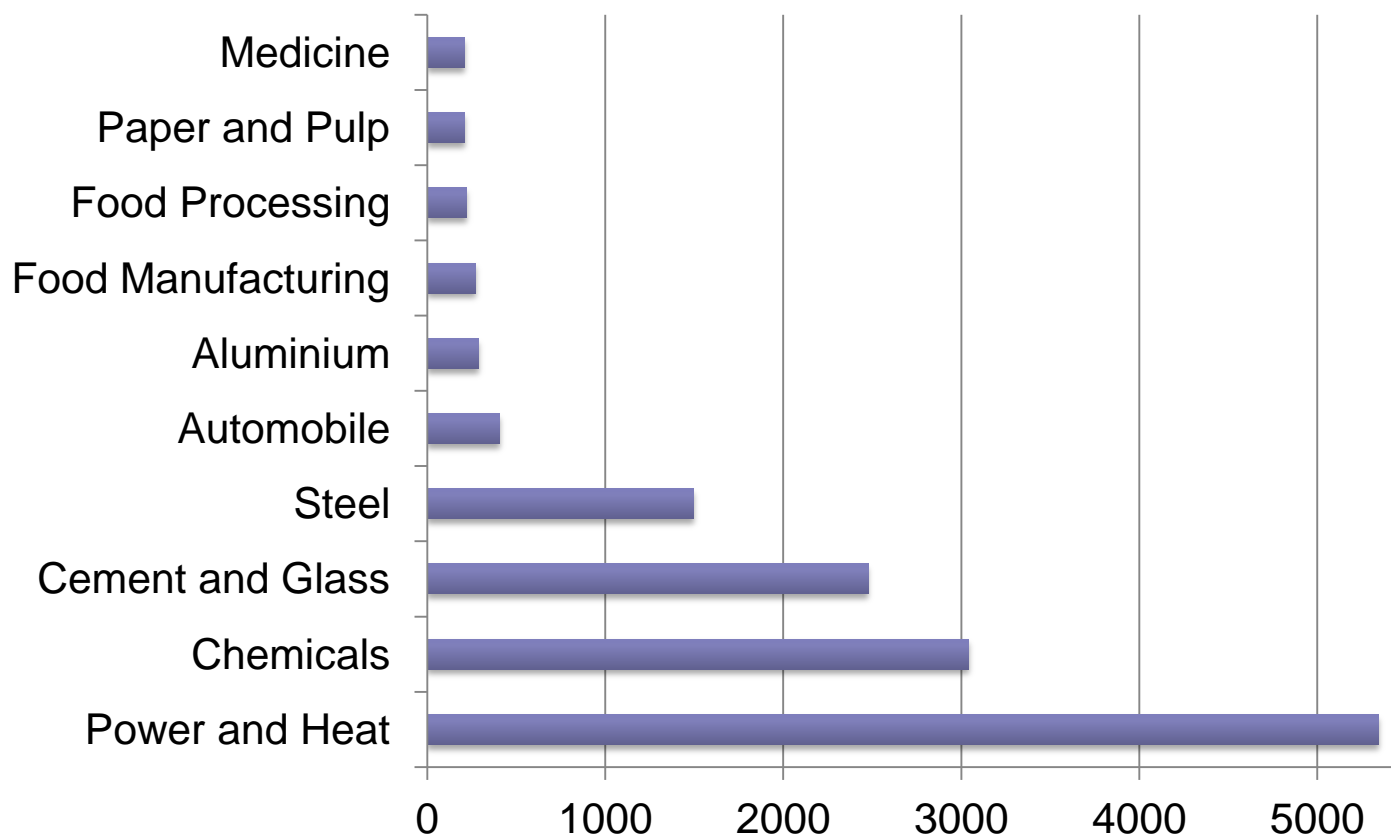
Coverage

■ Industries Coverage

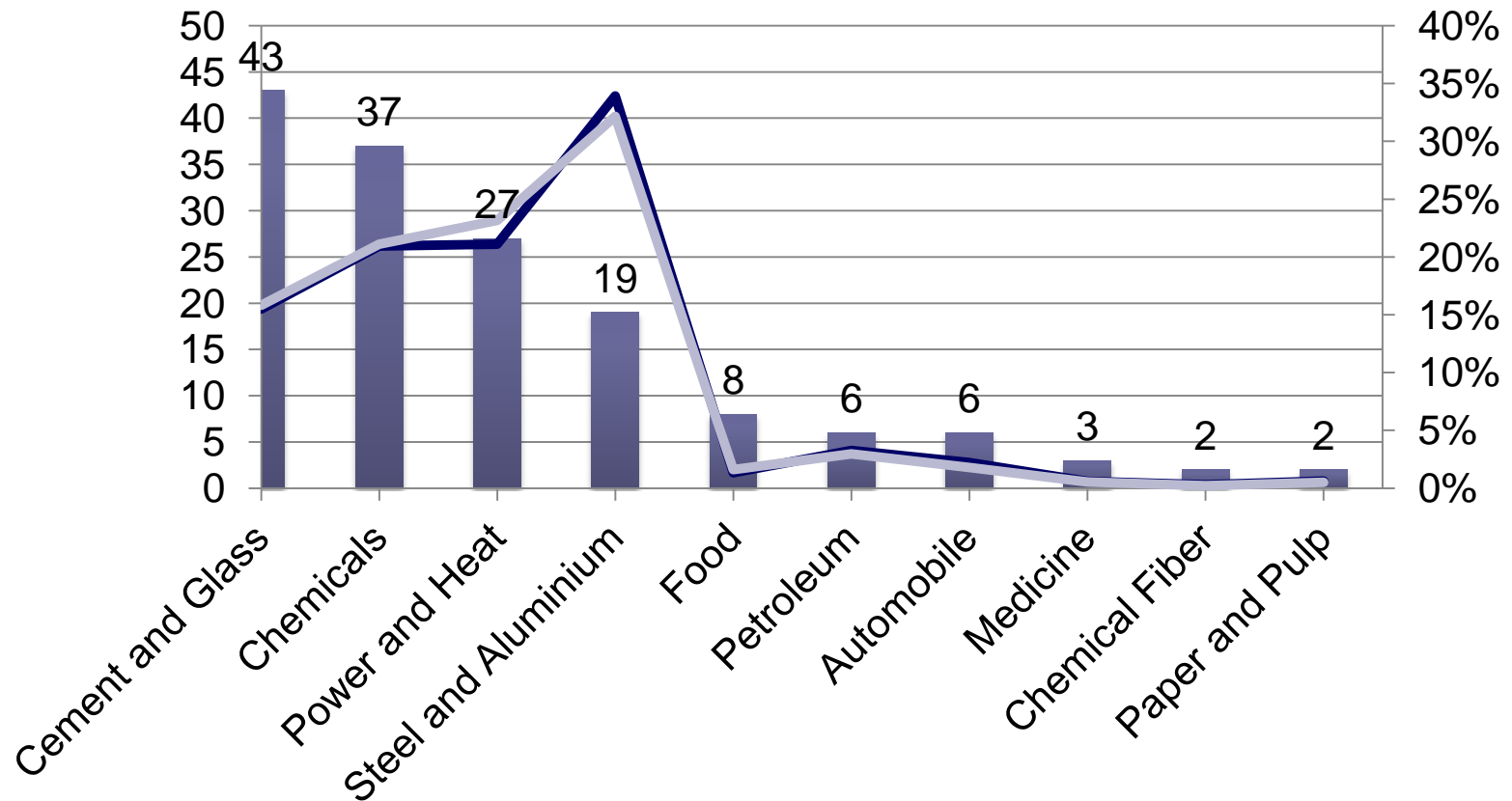
- Threshold: 60 thousand tons of standard coal equivalent per year
- 153 enterprises
- Main energy consumption firms
- Major contributors of the carbon emission
- Marginal abatement cost

Top Ten CO₂ Emission Industries in 2011 in Hubei

(Units: 10,000 tons)



Covered Industries and Its Emission Proportion



■ Number of Enterprises

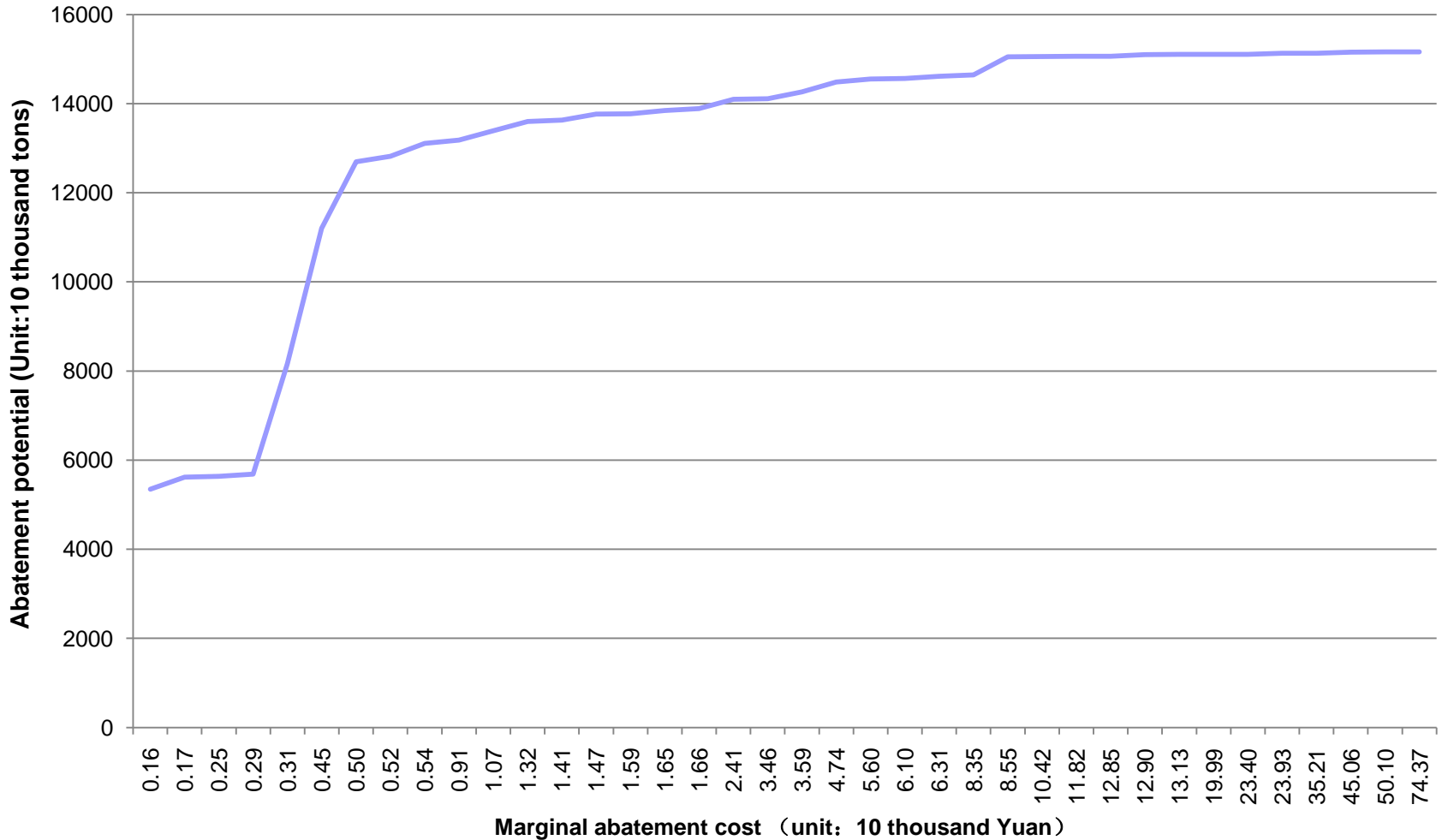
— 2010 emission proportion of covered enterprises

— 2011 emission proportion of covered enterprises

Emission Proportion of 153 Enterprises Covered

	2010	2011
Enterprises covered /province	33.01%	35.82%
Enterprises covered /industry	44.31%	47.94%

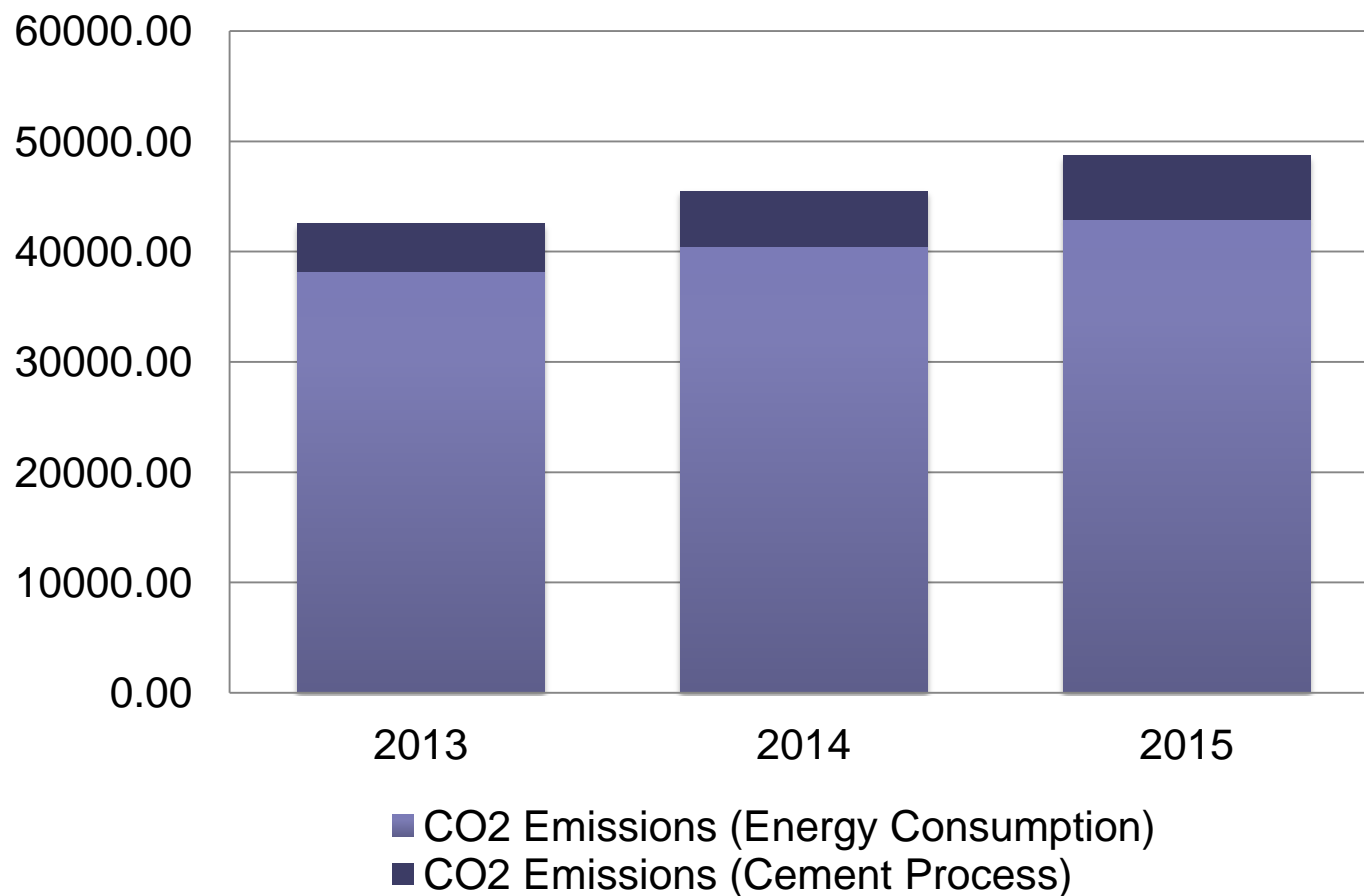
Marginal abatement cost and potential



CAP

- GDP growth rate
- Investment growth rate
- Energy intensity
- Carbon intensity
- Industry structure improvement
- Energy structure improvement
- Middle Scenario

CAP Based on the Middle Economic Growth Rate(9%) during 2013-2015 in Hubei (unit:10,000 tons)



Allocation

- Comparison of different mode of allowances allocation
 - Free
 - Auction
 - Mix
- Method comparison of free allocation
 - Grandfathering
 - Benchmarking
 - Multi-factors

Comparison of Different Modes of Allowances Allocation

	Auction	Free allocation	Gradual mix	Industry mix
Advantage	<ul style="list-style-type: none"> 1.Internalization 2.Avoid calculation formula in advance; 3.Avoid free money 4.Finance for clean technology 	<ul style="list-style-type: none"> 1.Rise the attraction to company in the early stage 2.Resolve carbon leakage issue 	Compromise	Different treatment based on different industry feature
Disadvantage	Increase the cost of company	<ul style="list-style-type: none"> 1. Need calculation formula in advance; 2.Coordinate interest claim 3. Over issue allowance 	The similar disadvantage to the free allocation mode in the early stage	The similar disadvantage to the free allocation mode in the early stage
Cases	RGGI	EU ETS Phase I&II Tokyo-ETS GGAS	EU ETS Phase I-III	NZ-ETS Australia-CPM

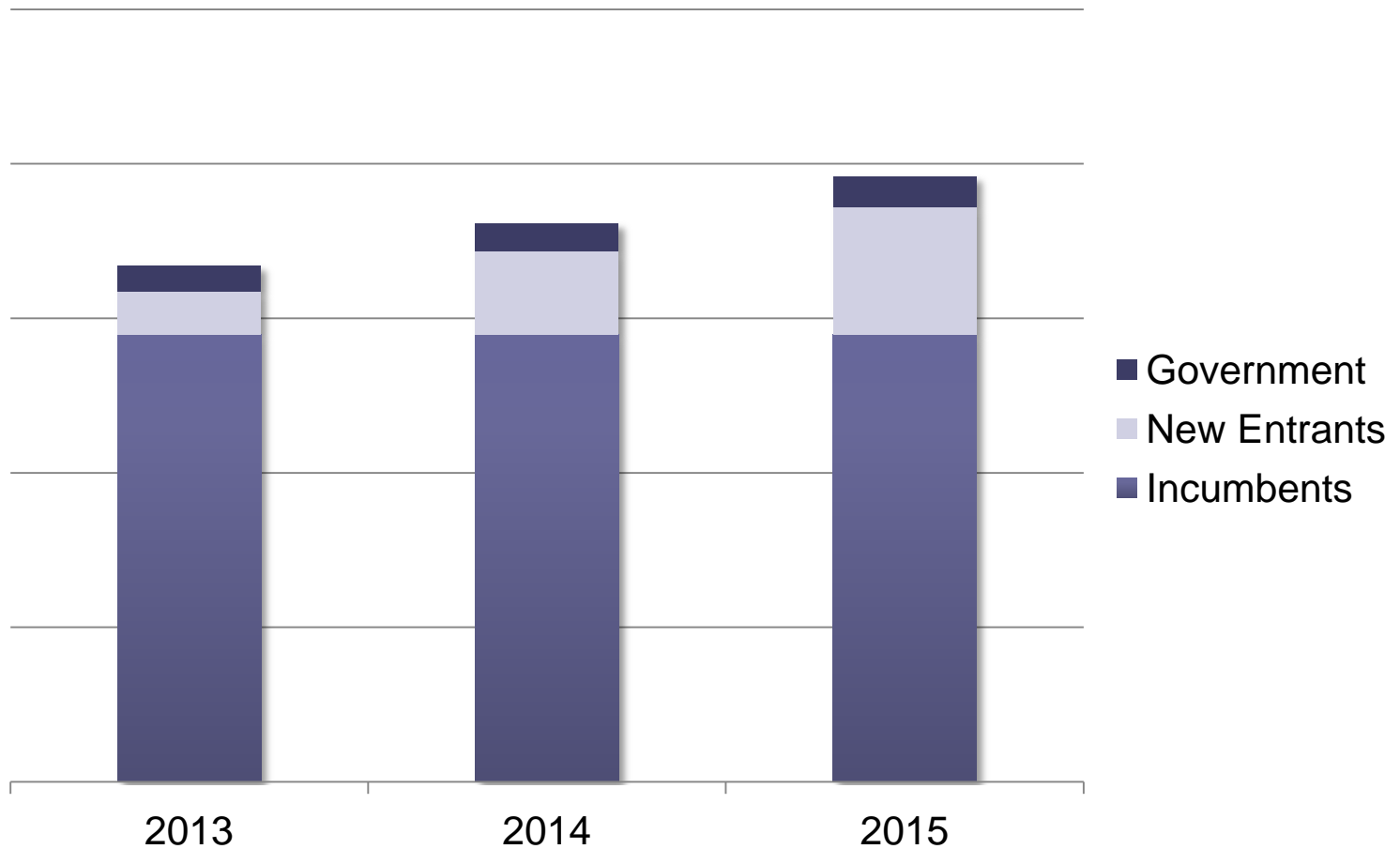
Methods Comparison of Free Allocation

	Grandfathering	Benchmarking	Multi-factors
Encourage emission reduction	No	Yes	Part
Consider the financial situation of company	Yes	No	Part
The allocation consistency of new entrants	No	Yes	No
Requirement for data	Simple	Complex	Complex
Complex degree	Simple	Complex design Simple allocation	Comparative complex
Stage of apply	Early stage	After some time of ETS operation and based on industry and different stage	After some time of ETS operation

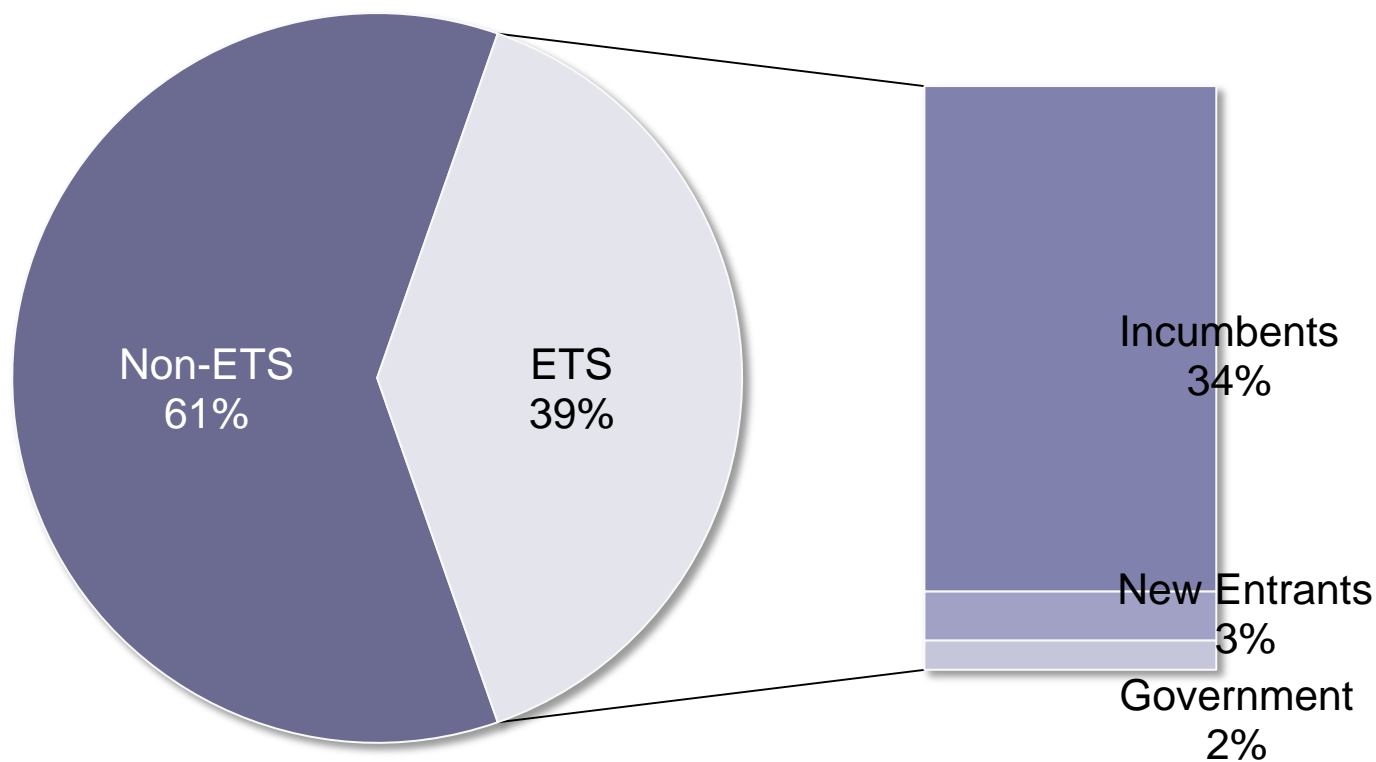
Allocation Scheme Design in Hubei Pilot

- Free allocation in the pilot period
- Incumbents: the existing enterprises or installations
 - Allocation mainly based on historic data (Grandfathering)
- New entrants
 - Allocation based on the actual emissions after the normal operation of the new projects/installations

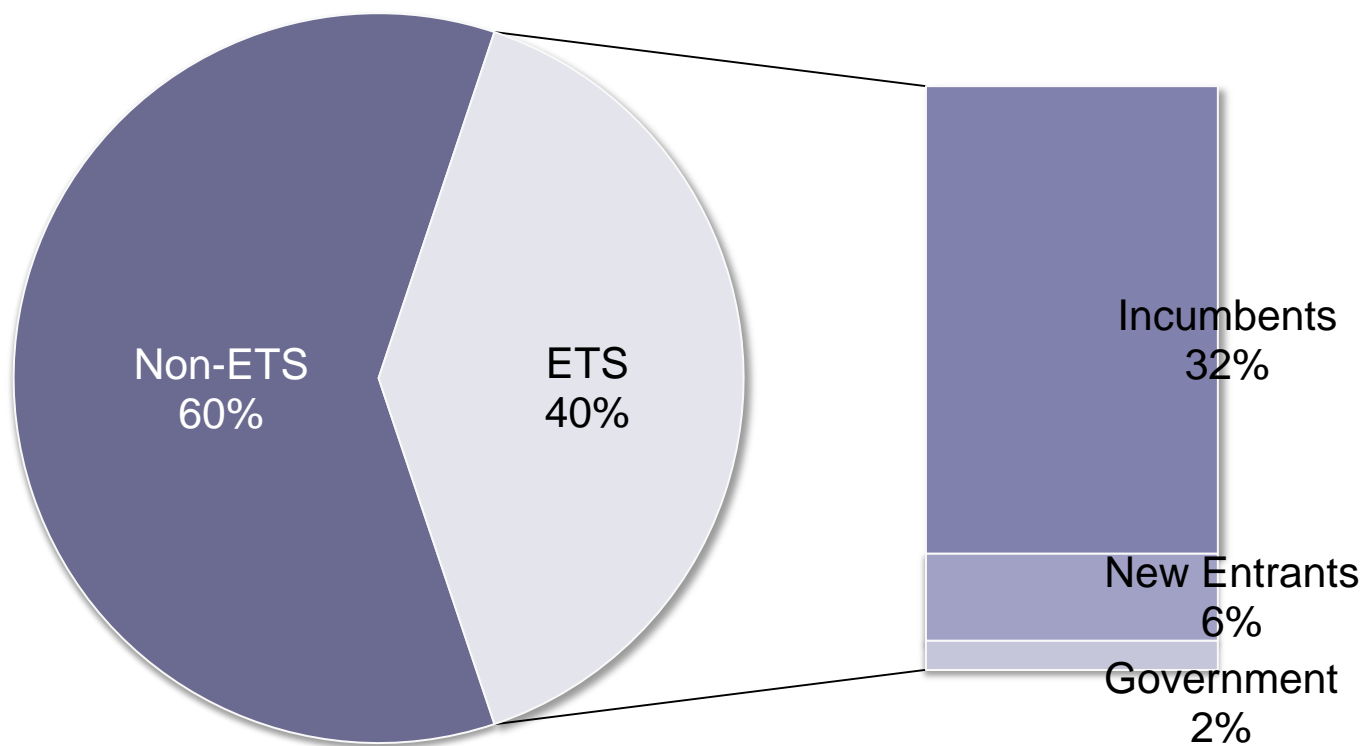
Allowances for Incumbents, New Entrants and Government (2013-2015)



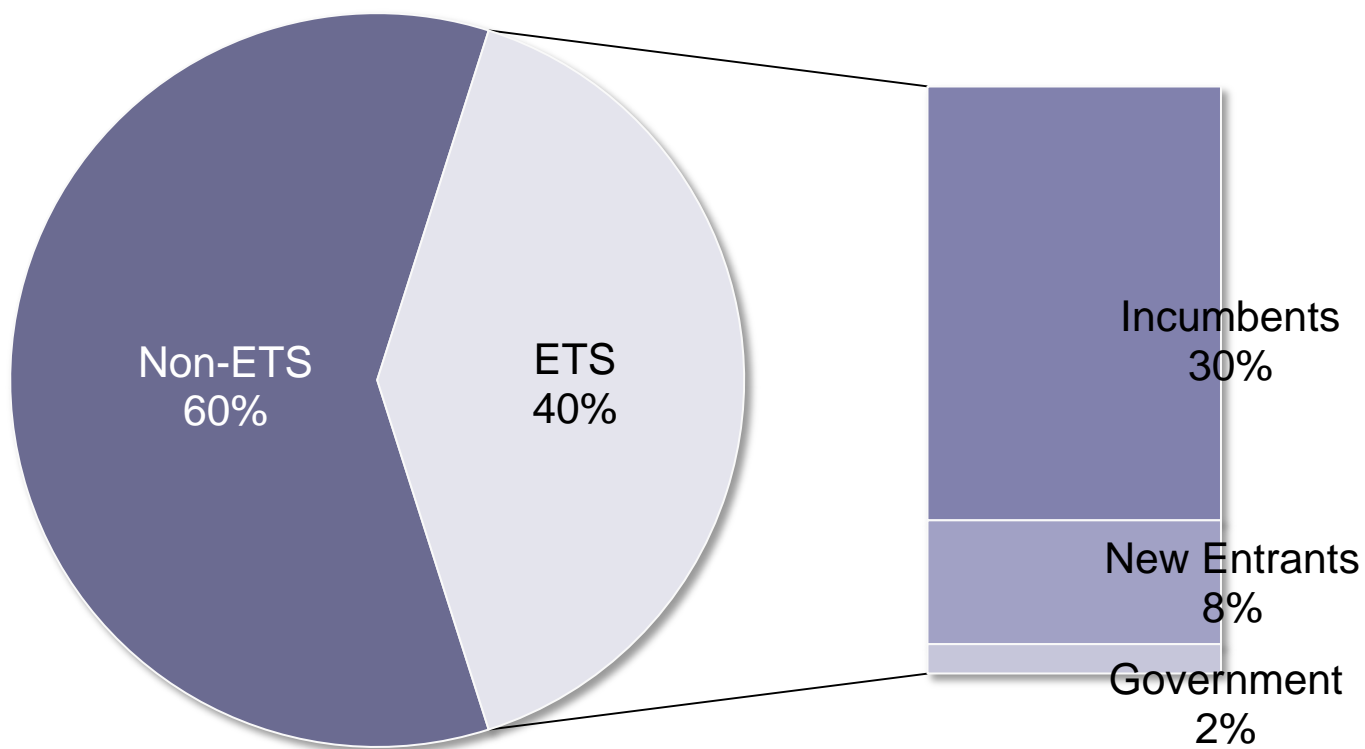
ETS and non-ETS Percentage in Hubei's Total Emissions in 2013



ETS and non-ETS Percentage in Hubei's Total Emissions in 2014



ETS and non-ETS Percentage in Hubei's Total Emissions in 2015



Price Mechanism

- Free market price
- Fixed price in a period
- Price floor/ceiling
- Price floating range and open market operation will be suggested in Hubei ETS pilot
 - Price stability
 - Marginal abatement cost
 - Liquidity
 - Encourage firms to invest in clean project
- Price discovery mechanism

Trading Products

- Products based on allowances
- Products based on offsets
 - CCER
- Product based on forest carbon-sink

Traders

- Enterprises covered (direct participants)
- Enterprises acquire CCERs
- Other qualified institutional investors
- Buffer fund

Characteristic of Hubei ETS Pilot

- Try to balance the high economic growth and Emission
- Focus on the large enterprises while relaxing control over small ones
- Big difference between covered sectors
- Rigid CAP quantity and flexible CAP structure
- Price discovery and stable mechanism
- Domestic and international cooperation

The influence of ETS in Hubei

- Market mechanism
 - Economic driver for energy saving and emission reduction of enterprise
 - Basic ability building
- Long-term effective institution arrangement
 - Help to control Cap
 - Help to improve economic structure
 - Help to develop low carbon industry
- National reference significance
 - The national ETS can be succeed only if Hubei ETS is succeed



**Thank you for your
attention and question**