

**16th IEA-IETA-EPRI Annual Workshop on  
Greenhouse Gas Emission Trading**

**Carbon Market Plans in  
Chinese Taipei**

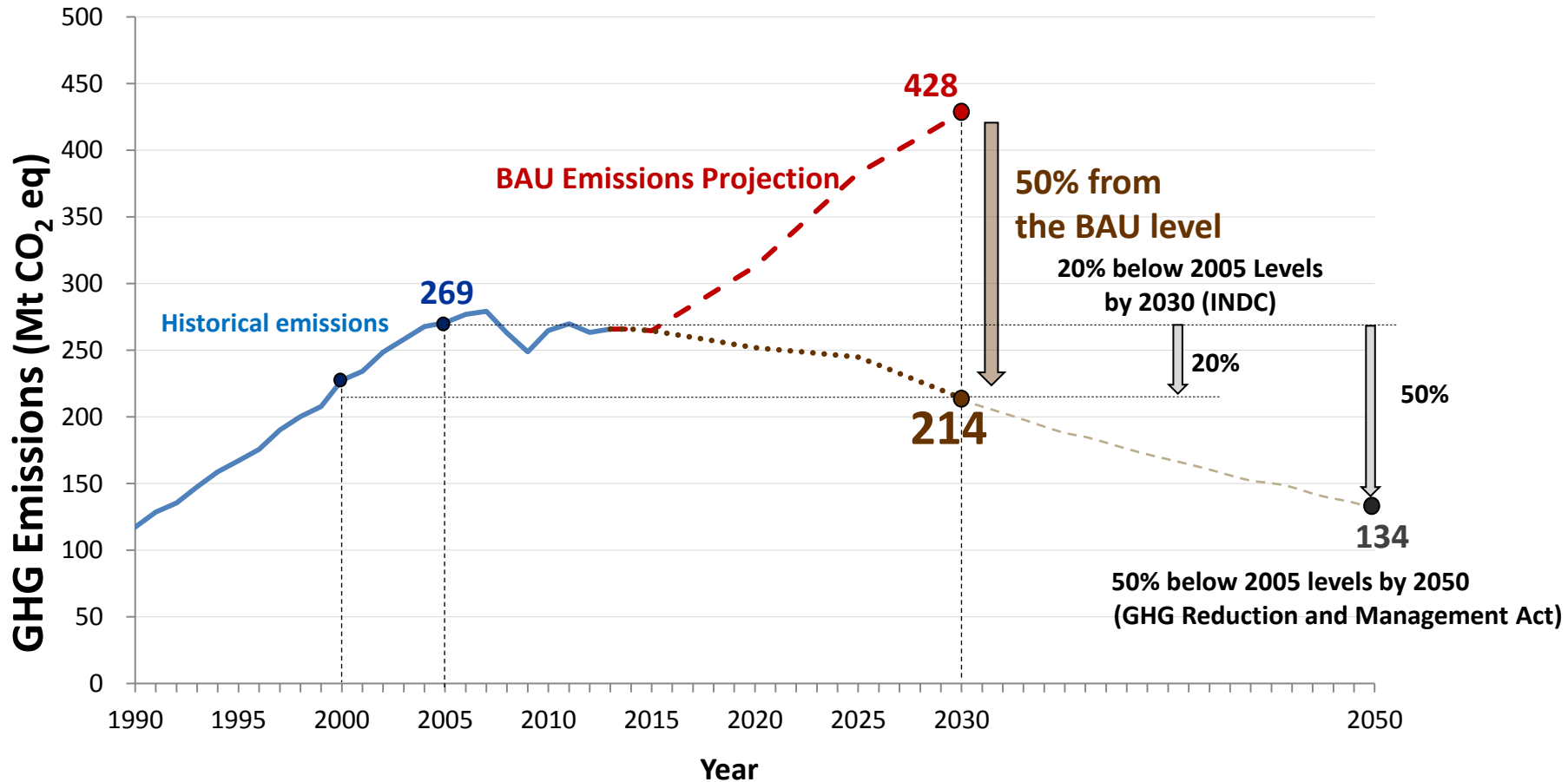
**Robert Shih**

**18 October 2016**



# GHG Reduction Goals

- **2030: 50% from the BAU (about 20% below 2005 level)**
- **2050: 50% below 2005 level**



# Cap-and-Trade Elements

1

5-yr Phase Targets

## Article 11

- Principles for setting the targets are set by the advisory committee, EPA sets targets in consultation with stakeholders

2

Cap and Timeline

## Article 18

- Taiwan EPA will implement cap-and-trade considering international developments, and after MRV, allocation, trading, offset, etc., rules are set

3

Allocation Principles

## Article 20

- Take into account sector trade intensities, cost impacts, carbon leakage; by free, auction, or sale

4

Sales Price

## Article 28

- Market price for determining penalty and sales will be set by considering domestic and international prices

5

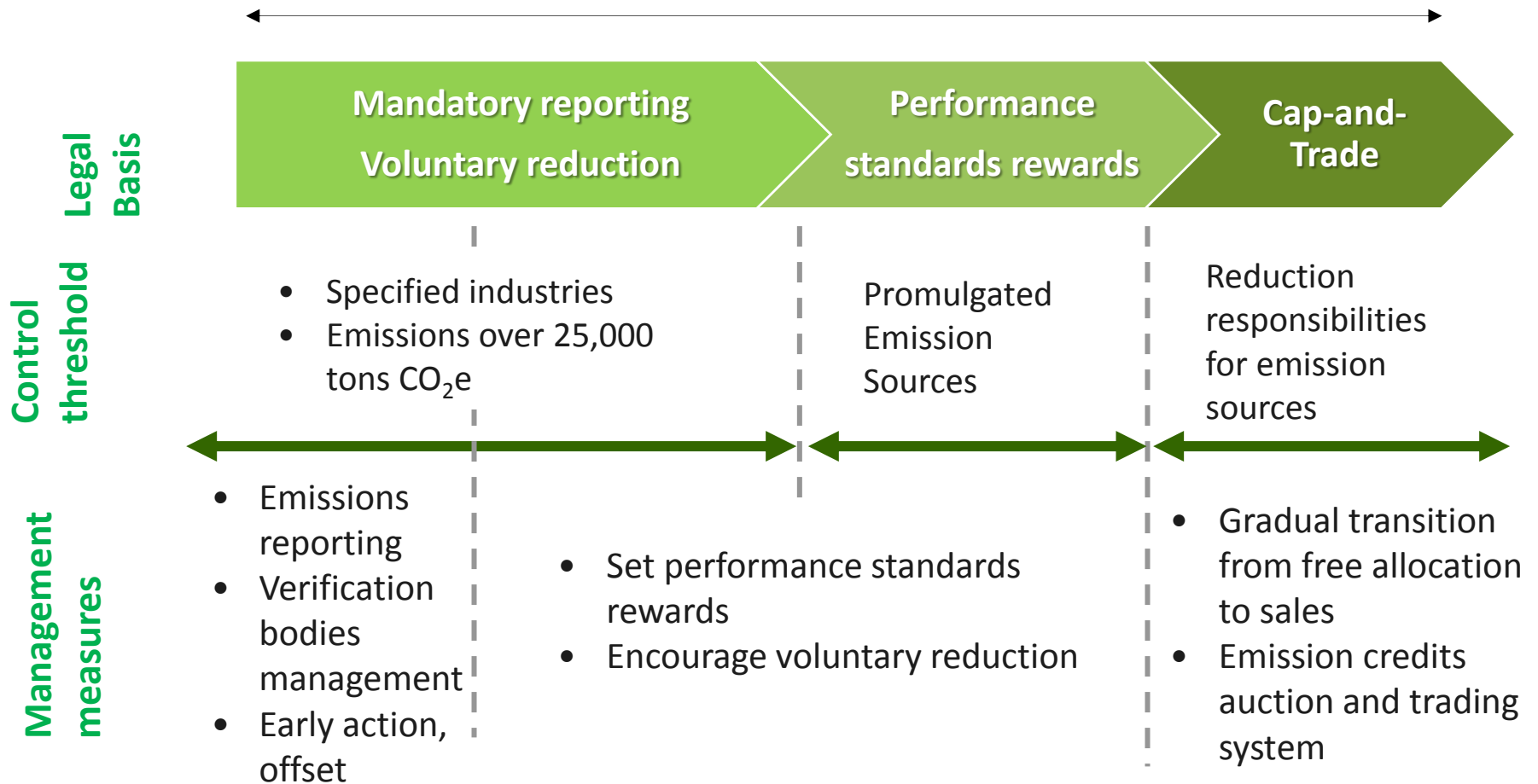
Allowance proceeds/  
Fee

## Article 19

- Proceeds from allowance auction/sales and transaction fee will go to GHG Management Fund

# Reduction Strategy by Phases

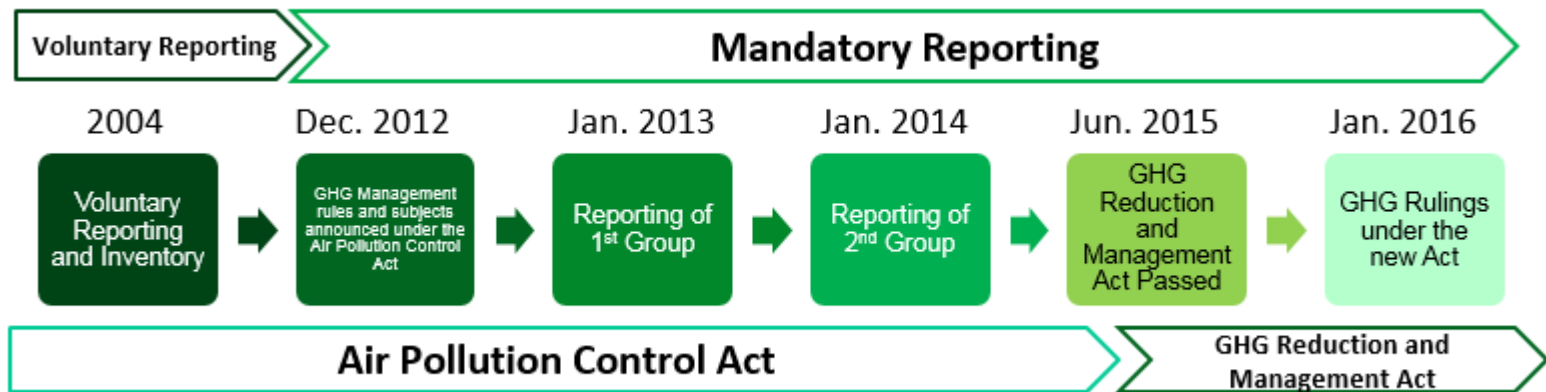
## GHG Reduction and Management Act



# Mandatory GHG Reporting

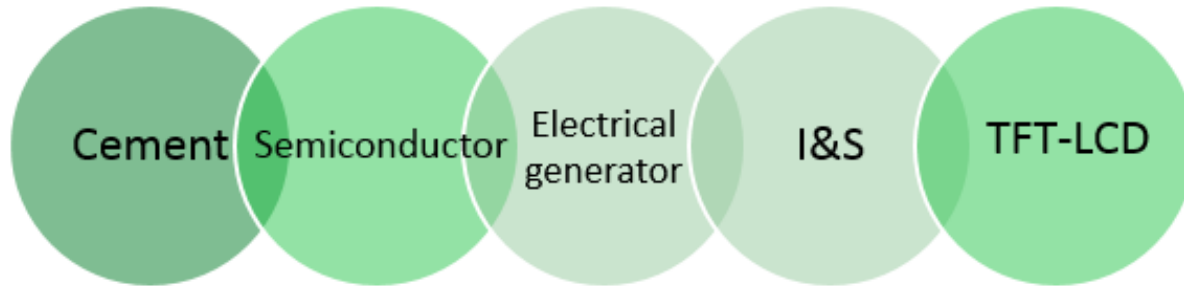
## GHG Reduction & Management Act

- “GHG Emissions Reporting Rule” (January 5, 2016)
- “GHG Emissions Reporting - Designated Stationary Sources” (January 7, 2016)
- 262 emissions sources reported, covering about 88.8% of industrial and energy sector emissions, totaling 226.49 MT CO<sub>2</sub>e



# Early Action Credits

- Designated Emission Intensity values
- 5 Designated Emission Intensities released on June 30, 2011:

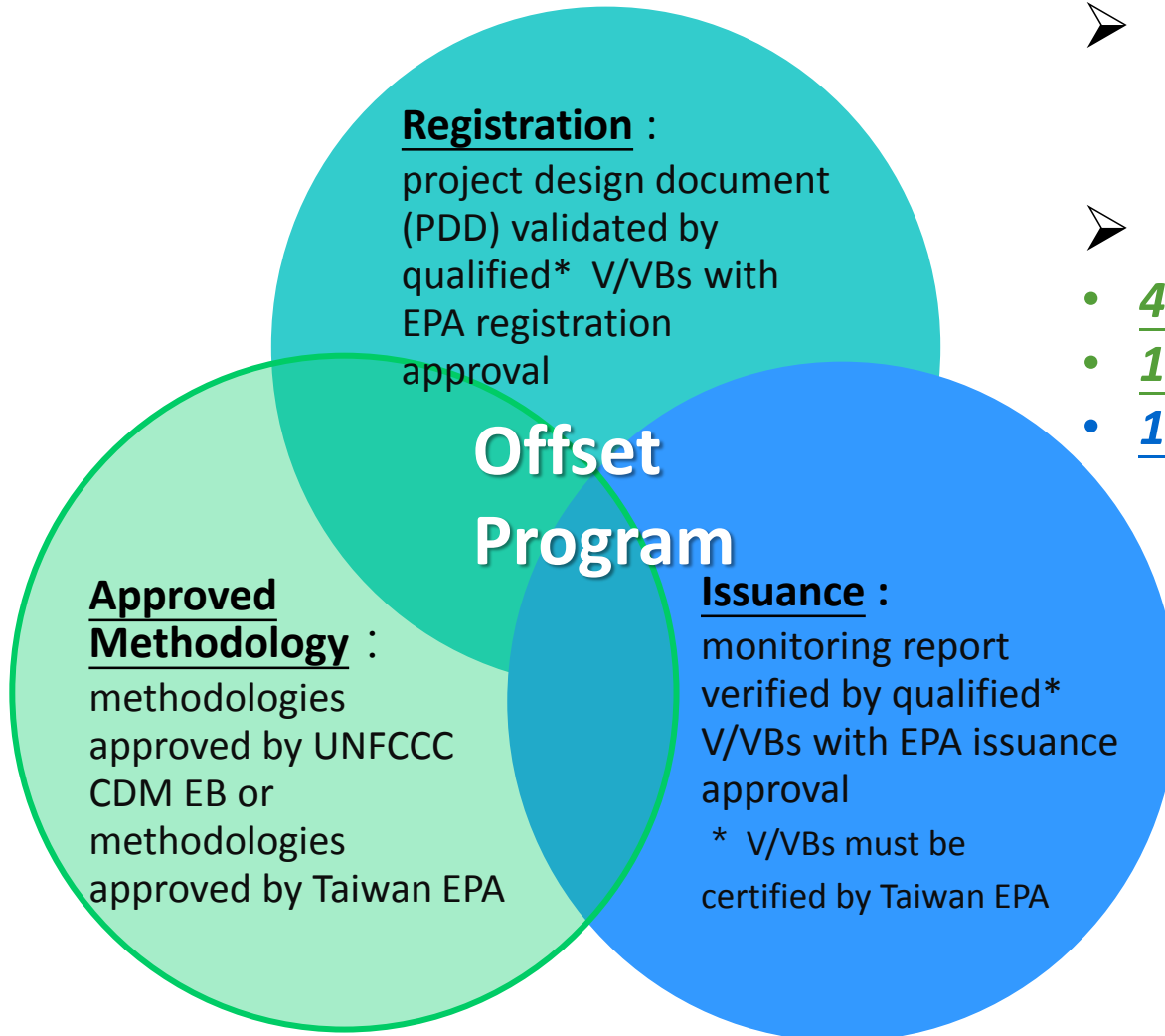


Emission intensity based on the product, scope, and installation types

- As of Oct. 2016:
  - **483** Early Action applications approved
  - **>69 MT** credits issued

Sector (process)	Product (variations)	Emissions Intensity
Iron & Steel (integrated, Elec.Arc, Rolling)	Billet, Carbon, H, Stainless, Hot Rolled Coiled Steel/Plate	0.14 ~ 2.17 tCO <sub>2</sub> e/ t I&S product
Cement	Clinker	0.821 ~ 0.917 tCO <sub>2</sub> e / tClinker
TFT-LCD	Glass Substrate (under 5th Gen.& above 5.5 Gen.)	0.031 ~ 0.308 tCO <sub>2</sub> e / m <sup>2</sup> Glass Substrate
Semi-Conductor	Wafer (< 6", 8", 12" & 12" DRAM)	0.426 ~ 1.894 kgCO <sub>2</sub> e/cm <sup>2</sup> Wafer
Electrical Generation	Steam Turbine Unit (coal, oil, NG)	0.355 ~ 0.882 tCO <sub>2</sub> e/MWh
	Combined Cycle Unit (coal, oil, NG)	

# Domestic Offset Projects



- Rules issued in 2010, now set in regulation under GHG Act
- As of Oct. 2016:
  - 40 applications submitted,
  - 10 registered.
  - 1 project credits issued (60 tons)

# Unique Features

- ❖ The fundamental principles of the ETS are set in the GHG Act, with the follow-up rules to be developed by EPA in consultation with the central industry competent authorities.
- ❖ Direct emissions from public utilities (power, oil/gas) will not be capped under the ETS, and the burden will likely fall more on energy users.
- ❖ Prior to the deadline for surrender for compliance obligation, allowances allocated for the previous year cannot be traded before the entities' emissions are verified to make sure that there are enough allowances to cover compliance (i.e., limiting forward trading).



# Challenges Ahead

- ❖ Although the GHG Act has been passed over a year ago, the process of determining the start of ETS and its cap is still ongoing. Current efforts are focused on setting the interim 5-yearly economy-wide targets, as well as relevant ETS regulations (aimed by the end of 2017)
- ❖ The current policy to phase out nuclear power by 2025 will make reaching the economy-wide target even more challenging.
- ❖ Given that the rules of international emissions trading under the Paris Agreement are still to be negotiated, the ETS needs to be in line with international and regional developments, in order to ensure that its system would be compatible, either directly or indirectly.

# Thank You !

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