

# Monitoring, Reporting and Verification (MRV) System in China's National ETS

DUAN Maosheng  
China Carbon Market Center (CCMC)  
Tsinghua University  
Sep. 25, 2018      Bangkok

# 1. Vital Role of MRV System in ETS

- Why do we need reporting?
- Data lies in the center of ETS design and operation
  - ✓ Determination of sectors and enterprises to be covered
  - ✓ Setting emissions cap of the system
  - ✓ Free allocation
  - ✓ Transaction strategy of covered enterprises
  - ✓ Compliance assessment and enforcement
  - ✓ Assessment of system performance and improvement of system design

# 1. Vital Role of MRV System in ETS

- Why do we need monitoring and verification?
- Monitoring is the basis of reporting
- Verification is critical in ensuring the quality of reported data
- MRV system ensures the availability and quality of reported data
- Major components of an effective MRV system
  - ✓ What to monitor: which types of data, e.g. coal/gas/electricity consumption, heat value, emissions factor, output of major products ...
  - ✓ How to monitor: monitoring instruments, personnel, frequency ...
  - ✓ What to report? How to report?
  - ✓ How to verify?

## 2 Monitoring Provisions

- Monitoring requirements should be consistent with data requirement determined mainly by allocation needs
  - ✓ Emissions and other data
  - ✓ Entity level vs. installation level
- Accounting or continuous emissions monitoring?
- Current statistical basis need to be fully considered in developing the monitoring requirements
- It is highly possible that the full requirement cannot be met at the very beginning and a tiered approach could be used
- Gradual improvement during the system operation process

## 2 Monitoring Provisions

- Unified requirements for all covered entities in China's national ETS
- Accounting instead of continuous monitoring
- 24 accounting and reporting guidelines (national standards and NDRC decree)
  - General guideline of GHG emissions accounting and reporting for industrial enterprises
  - Guideline of GHG emissions accounting and reporting for enterprises in the power generation, iron and steel, cement production, etc.
- Accounting mainly at enterprise level, and at product level for some sectors

## 2 Monitoring Provisions

- Tiered approach, e.g. real monitoring vs. default value of coal heat value
- Additional requirements on monitoring and reporting due to the changing requirements on data caused by allocation approach change, e.g.
  - ✓ different allocation approaches for coal-fired power plants using different technologies and of different scales: super critical, ultra-super critical
  - ✓ real production-based benchmarking
- Monitoring plans are useful for both standardize monitoring activities and verification at a later stage, need to be developed and recorded/approved by provincial-level ETS authority

### 3. Reporting Provisions

- Reporting requirements should be consistent with monitoring requirements
- Requirements should be clearly elaborated in the reporting guidelines
- Reporting is required not only for the accounting outcome but also all data and supporting documents in China's national ETS
- Electronical reporting is a must

### 3. Reporting Provisions

- Information will be reported to the provincial authorities and then transmitted to the national authority
- Electronic reporting systems will be developed by the provincial authorities, consistent with national requirements
- Possibility to incorporate the verification progress in the reporting system to improve transparency

## 3. Reporting Provisions

- Specific guidelines on the reporting process
  - Detailed provisions
  - Escape clause, including applicable situations and procedures, for example when provided accounting methodologies cannot be applied
  - Requirements on internal quality management and control
- Experiences and lessons learnt in China's national system, e.g. a national reporting system is preferred but the development has been delayed

## 4. Verification Provisions

- Third party verification is essential in ensuring the quality of data
- Effective management of the third party
  - Unified eligibility requirements for third-party verifiers and individual verifiers
  - Application submission
  - Designation of verifiers
  - Continuous management of verifiers

## 4. Verification Provisions

- Effective supervision of the verification outcome
  - Verification procedures and modalities
  - Both process- and outcome-based assessment of the verification reports
  - Follow-up measures, including consequences, in case of poor verification
  - Appropriate treatment of confidential information

## 4. Verification Provisions

- Verification arrangement
  - different verification contractual practices
  - Verification service contract between entity and verifiers
  - Verification service contract between the ETS authorities and verifiers
  - Avoidance of possible conflict of interests
  - Verification and costs
- Challenges
  - Establishment of verifier eligibility requirements

## 5. Lessons Learnt in China's National ETS

- Strong legal basis for the mandatory MRV requirements
- Provisions shall be established for all data required in the MRV system
- A unified reporting system incorporating validation process could greatly facilitate the process of reporting, verification and follow-up supervision by the authorities
- Making full use of existing reporting provisions and outcomes

# Thanks

[duanmsh@tsinghua.edu.cn](mailto:duanmsh@tsinghua.edu.cn)