# Role of MRV in Effective Emissions Trading Programs

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**US-China Workshop: Domestic MRV of Climate Efforts** 

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C2ES.ORG

#### **Introduction to C2ES**



- Established in 1998 as an independent, non-partisan climate organization
- Three-fold structure:
  - Research 100+ reports over 14 years
  - Actively advise on policy state, federal, international
  - Business Environmental Leadership Council (BELC)
    - 36 companies
    - o approximately \$2 trillion in revenues
    - Nearly 4 million employees

## **BUSINESS ENVIRONMENTAL LEADERSHIP** COUNCIL











































































#### **Outline**



# Context

Why MRV is important

# Criteria

## Elements

- Measurement
- Reporting
- Verification

#### **Context – importance of MRV**



- MRV is important to ensure environmental and program integrity
- Emissions trading needs complete and accurate emissions data for each entity covered by the program
  - Ensures accuracy in goal setting and compliance monitoring
- Equity all sources must follow the same rules and procedure and all must meet program comprehensive program requirements
- Market transparency
  - Emissions data and market information important to ensure well functioning market: <u>confidence</u>, <u>market stability</u>, <u>and</u> <u>predictability</u>
- Good data also allows the program authority to monitor and adjust if necessary

## MRV criteria/objectives



- Simple, consistent, and transparent rules
- Accurate emission measurement, monitoring, and reporting (preferably done electronically and including public access to emissions data)
- Sound auditing practices to ensure that emissions are being accurately reported
- Minimized transaction costs for covered entities and for program authority
- Consistent enforcement with real penalties for noncompliance and inaccurate reporting

#### **Key Elements of MRV**



#### Measurement

 Variety of measurement techniques: upstream vs. downstream, material balance or emissions monitoring approaches; all feasible & used

#### Typically:

- Program authority specifies the measurement methodologies/requirements
- Covered entities create and submit a plan for monitoring their emissions using the required methodology
  - » May require that entities install, certify, & maintain measurement equipment
  - » May require data quality assurance and measurement testing

## Reporting



- Program authority provides or authorizes third party operation of an emissions reporting and compliance tracking system
- Sources report emission and activity data to tracking system\
- Generally standardized reporting requirements for all covered entities (ensures comparability)
- Report GHG emissions annually
- Obtain compliance instruments (allowances and offsets) equal to emissions
- Turn in allowances and offsets to match emissions at the end of each compliance period

#### **Verification**



#### Verification - Analysis and review of reported data

- Third party or program authority generally verifies emissions data
- Offset program verification of project emission reductions
- Onsite inspections
- Record keeping requirements
- Program authority audits data
- Program authority may want to have "market monitor" to ensure market manipulation not occurring

#### **Additional Market Tracking**



- Auctions?
- Market Monitor?
- Offset Program?
  - Validation of offset project types
  - Verification of GHG reductions
  - Certification of Verifiers
  - Offset registry
- Trading platform?
- Market Exchange?
- Price discovery?



FOR MORE INFORMATION

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