

Midwest Regional Greenho

Design Elements

Options

1. Strategic Goals and Objectives

Goals and Objectives

1. Ensure credible GHG measurement and reporting platform

2. Promoting linkages with other registries

3. Facilitating corporate GHG management and strategy development

4. Improving air quality and protecting the climate

5. Promote regional economic development

2. Non-Technical GHG Registry Design Elements

Accounting Approach

1. Entity-based

2. Project-based

Collaboration/Linkages with Other Registries

* Program specifications

* Protocols

* Database

1. Stand-alone registry (but compatible)

*** Administrative tasks**
*** Development of new programs/policies**

2. Registry Alliance (with CCAR and RGGR)

3a. Use existing registry (join CCAR or RGGR)

3b. Use existing registry (encourage companies to use CCX)

Sectors

*** Energy**
*** Industrial processes**
*** Agriculture**
*** Waste**
*** Land use, land use change, forestry (LULUCF)**

1. Energy

2. Energy, industrial processes, LULUCF

3. Energy, agriculture

4. All sectors

Sources

*** Stationary Combustion**
*** Mobile Combustion**
*** Process Emissions**
*** Fugitive Emissions**

1. Stationary combustion

2. All source categories

Gases

6 Major GHGs

* Carbon dioxide (CO₂)

* Methane (CH₄)

* Nitrous oxide (N₂O)

* Sulfur hexafluoride (SF₆)

* Hydrofluorocarbons (HFCs)

* Perfluorocarbons (PFCs)

Other GHGs

*chlorofluorocarbons (CFCs)

*hydrochlorofluorocarbons
(HCFCs)

*carbon monoxide (CO)

*nitrogen oxides (NO_x) *volatile
organic compounds (VOCs)

1. CO₂

2. CO₂, CH₄, N₂O, SF₆

3. All six main GHGs

4. Other GHGs (e.g., CFCs, HCFCs,
CO, NO_x, VOCs)

Geographical Boundaries

* State-level

* Regional-level

* National-level

* International-level

1. State-level

2. Regional-level

3. National-level

Verification

1. Require third party verification

2. Require third party verification for first year, with random audits in following years

3. Risk-based approach

4. Consolidating administrative tasks

3. Program Technical Design Elements - Entity Accounting and Report

Defining the Reporting Entity

1. Corporate-level reporting

2. Facility-level reporting

Setting Organizational Boundaries (corporate-level reporting)

1. Allow companies to select approach (i.e., equity share, financial control, operational control approach)

2. Specify required approach, allow other approaches as options

3. Require reporting based on equity approach and one of the control approaches

Reporting Direct and Indirect Emissions
* **Scope 1: direct emissions**
* **Scope 2: indirect emissions from consumption of purchased electricity, heat, or steam**
* **Scope 3: other indirect emissions**

1. Scope 1 emissions required

2. Scope 1 emissions required, Scope 2 and 3 optional

3. Scope 1 and 2 emissions required

4. Scope 1 and 2 emissions required,
Scope 3 optional

Establishing a Base Year

1. Specification of a particular base year (e.g., 1990 or most recent year)

2. Use of single or multiple years

3. Recalculation of base year emissions

4. Need for significance threshold to trigger base year recalculations

Establishing Emissions Accounting Threshold

1. Define 'de minimis' emission level (i.e., do not need to account for emissions less than this level)

2. Define materiality level (i.e., acceptable difference between inventoried emissions and total actual emissions)

Reporting Requirements (public reporting)

1. What information will be reported

2. What reported information will be made public

3. How the information will be made available

Reporting Requirements (data provided to the registry)

1. Corporate-level

2. Facility-level

3. Unit-level

4. Mixed Option (Corporate data plus selected facility/unit data)

4. Calculation Protocols and Registry Database Options

Calculation Protocols (quantification specifications and calculation tools)

1. Customize existing protocols
2. Develop registry specific quantification specifications, but adopt calculation tools from existing programs
3. Adopt registry quantification specifications and calculation tools from existing programs
4. Mix of three approaches depending on demand and needs in the regional area

Reporting Software

1. Use existing software, such as CARROT or EATS
2. Work with EPA and CCAR to develop hybrid version of EATS and CARROT
3. Develop new software

House Gas Registry: Options Paper Issues Summary

Discussion, Pros and Cons

Consideration of Other Registries

Given time and resource constraints, MW registry should focus in the short term on the first three objectives listed here

First three objectives are being followed by both CCAR and RGGR. CCAR has begun work on the next two objectives, i.e., with their Forestry Protocol for projects.

Midwest Registry should consider creating specific applications and incentives ("Hook")

Both objectives four and five require program design elements beyond creating the basic registry infrastructure, e.g., having companies set reduction targets.

Example - EPA Climate Leaders Program has a voluntary reduction target component.

Midwest Registry should consider creating specific applications and incentives ("Hook")

CCAR and RGGR currently provide for entity-level accounting

Desirable if there is a need for offset credits, if a voluntary cap-and-trade program is adopted, or if specific reduction practices are encouraged. Relatively uncomplicated to keep option open in the registry infrastructure for the future development. Additional time and resources needed if project component is developed.

CCAR planning to develop project-based methodologies; RGGR will require mitigation projects to follow project-based methodologies under RGGI cap-and-trade program

Pros: Independently develop registry elements, while maintaining some compatibility

Cons: Increased burden on companies; added administrative burden for MW registry

Need to sign MOU with Registry Alliance partners (i.e. CCAR and RGGR)

Pros: Reduces development/implementation costs, increases credibility of registry and data, reduces barriers for participation, streamlines reporting process

Cons: Alliance currently does not exist and may take some time to get established

CCAR and RGGR currently pursuing collaboration on program specifications, data collection and storage, and sharing administrative tasks; Concept paper completed

Need to sign MOU with California or RGGR States.

Pros, increased efficiency especially in Phase 1 (development of program specifications), but also in implementation.

Cons: Some of the specifications have already been established. A process would need to get set up with RGGR or CCAR

RGGR will soon begin their process of getting the states to sign an MOU. CCAR is currently only one state.

Pros: Least burden to MW States, CCX well established

Cons: MW States would not have access to data; no opportunity to influence CCX specifications and regulations

86% of region's GHG emissions

Through GHG Protocol, CCAR, and Climate Leaders, the entity-level calculation protocols are currently available for these three sectors.

Besides energy, agriculture is next largest emitter of GHG emissions in region

Pros: Promotes inclusiveness and program participation

Cons: Need to develop comprehensive calculation protocols for the agriculture and waste sectors

CCAR and RGGR do not exclude any sector, but protocols exist for only energy, ind. processes, and LULUCF

62% of region's GHG emissions*
* approximate number based on WRI CAIT tool. Total energy sector emissions minus transportation and fugitive emissions.

Pros: Promotes inclusiveness and program participation; facilitates linkages with other registries
Cons: Need to develop protocols for some emissions generating activities (mainly Waste management and Agriculture sector activities) in these source categories

CCAR and RGGR include all four source categories

85% of region's GHG emissions

CCAR - only CO2 required for first three years (others recommended). Afterwards all 6 gases are required

CH4, N2O are two major GHGs from ag sector; and 11 of 18 magnesium producers in region (source of SF6)

Pros: Promotes inclusiveness and program participation; facilitates linkages with other registries
Cons: Need to develop protocols for some GHGs (e.g. CH4) for some sources/sectors (e.g. Fugitive CH4 from Waste sector; CH4 and N2O from ag. sector)

RGGR - all six main GHGs required
CCAR - all six GHGs required after 3 years

Pros: Some potential industrial participants may be interested in reported on some of these gases; NOx may be particularly relevant to the Midwest region
Cons: Overall contribution of these GHGs to climate change is relatively minor; CFCs and HCFCs are already controlled internationally through the Montreal Protocol; most other U.S. and international GHG registries and programs do not include these GHGs.

GHG Protocol - emissions data from these GHGs can be reported separately under optional information; IPCC is in the process to develop best practice guidelines on indirect GHGs/precursors such as Nox, VOCs etc. The new guidelines are expected to be published in this year.

Pros: Consistent with on-going state regulatory programs; may help some companies prepare for future state climate change regulatory program
Cons: Added accounting issues on indirect emissions compared to national accounting. Less data required by participants than the regional approach. Could encourage cherry-picking of reductions.

CCAR - California emissions required; national optional/encouraged

Pros: If regional approach selected to implement GHG programs beyond the registry infrastructure development, then both the regional group and the participating companies will have the correct data available for such initiatives. Reduces the ability to cherry pick -- compared to state-level accounting.
Cons: Added accounting issues on indirect emissions compared to national reporting. May complicate the addition of new states to the registry. Synergy between state and regional approach may be possible for direct emissions if facility-level data is required for the region. Indirect emissions may be more complicated to aggregate from state to regional numbers.

RGGR - regional emissions required; national optional/encouraged; state not accepted

Pros: Facilitates linkages with other registries, provides complete picture of company's emissions; may help companies prepare for future national climate change regulatory program. Reduces cherry picking reductions.
Cons: May be too complex and burdensome for some companies

RGGR - National optional;
CCAR - National optional

Pros: Enhance data credibility, assists companies in managing data collection and quality
Cons: Costs to companies, and administrative burden to GHG registry program

CCAR requires third party verification, but allows batch certification for small companies, RGGR also requires third party verification, but details not yet finalized

Identify groups of companies with lower probability of having uncertain/faulty data (i.e., lower probability of getting audited)

Approve certification companies through the Registry Alliance

ing

Pros: more complete representation of entity's overall emissions, facilitates risk management, helps participants identify most effective emission reduction opportunities, more effective public reporting and performance tracking. Can collect facility-level data for corporate inventories to ensure future use of data for other programs
Cons: aggregating numerous business units can be difficult, higher costs for corporate-level reporting and verification

CCAR and RGGR requires corporate-level reporting; RGGR also requires facility-level data collection

Pros: consistent with level of aggregation required by state regulatory programs, more familiar to state regulatory agencies
Cons: does not consider whether corporate emission levels are changing, key stakeholders may be less interested in facility-level reporting, limits ability of companies to achieve broader GHG management and strategy goals

CCAR allows either equity or operational control approaches; RGGR requires financial control approach, but allows equity approach

GHG Protocol encourages companies to separately account for their emissions applying both the equity and one of the control approaches. This will help companies to develop a GHG inventory that is capable of serving multiple goals.

Exclusion of Scope 3 as an optional opportunity removes ability of companies to report life-cycle impacts that they may have.

Provides the most complete picture. Allows companies to report reductions from demand side energy projects and possibly from other indirect emissions.

CCAR and RRGR require Scope 1 and 2 emissions, with Scope 3 optional

CCAR and RGGR allow selection of any year as the base year

CCAR and RGGR only allow use of a single year as the base year

CCAR and RGGR allow recalculation under certain situations, per GHG Protocol

CCAR has 10% threshold

CCAR has both 5% de minimis and 5% materiality thresholds

CCAR and RGGR require Scope 1 and 2 emissions to be reported, Scope 3 optional

Facility- and/or unit-level data may be considered confidential information by some registry participants. It therefore may make sense to not make available to the general public all emissions data that participants are required to submit to the registry.

CCAR reports aggregated corporate-level data, with some break down in scope one by major source categories.

CARROT is both a data collection and data reporting tool. RGGR will use EATS for the same purpose.

Pro: Improved corporate GHG management; Improved transparency on corporate performance.
Con: Less useful for regulatory programs that focus on facility-level data

CCAR allows entity level data to be entered into the registry

Pro: Matches data collection level usually required for state mandatory programs. Con: May require more data reporting work than only supplying corporate level data; confidentiality concerns in some cases

Pros: improved accuracy
Cons: higher costs; confidentiality concerns

RGGR requires facility and unit level data to be reported to the registry, although it is not yet clear how the data will be reported to the public (probably only the corporate level data will be public).

In addition to corporate data, Midwest registry could require disaggregated data (ie. facility and/or unit) only for sources that are particularly important--e.g., facility- and/or unit-level data for large stationary combustion sources

Pros: provide further guidance, develop more rigorous CCAR developing their own protocols requirements, engage stakeholders
Cons: takes time and money

Pros: minimal time and costs needed
Cons: no stakeholder process

RRGR following this approach

Pros: least time and resource intensive approach
Cons: no stakeholder process

Pros: Can focus resources where they are most needed and develop stakeholder processes with sectors that are important e.g. agriculture and forestry sector, while saving resources on the more general tools.

CCAR using CARROT, RGGR using EATS

May be desirable approach for Registry Alliance

Will take time and money

Recommendation