

Midwest Regional Greenhouse Gas Registry

Options Paper Outline (November 30, 2005)

1. Introduction

In the development of the Midwest Regional GHG Registry (Midwest Registry), the options paper will provide an overview and detailed discussion of the 1) program non-technical design options, 2) program technical design options, and 3) database and calculation tool options, including all of their potential advantages and disadvantages in the broader context of key goals and objectives of the Midwest Registry. Towards establishing a context and decision framework, the options paper will also lay out the strategic objectives and additional benefits, design principles, and registry services. The primary purpose of the options paper will be to provide a comprehensive strategic and technical assessment that will include a clear set of choices and associated implications on various registry design issues. The options paper will be prepared and submitted by WRI in key sections for review, discussion, and necessary interim decisions by the Lake Michigan Air Directors Consortium (LADCO) and the Registry Working Group (RWG). Interim decisions will be important and necessary to guide and shape the subsequent sections. Decisions made by the RWG will provide the foundation for the development of the program specifications of the Midwest Registry.

1.1. Strategic Objective and Additional Benefits

The design of the Midwest Registry could be driven by the principle objective of **providing a credible GHG measurement and reporting platform to participating entities**, which may facilitate recognition/protection for early voluntary actions, linkages with other registries, and/or expansion to other states/regions.

Achieving this principle objective could additionally bring about an array of other benefits to regional businesses, governments, citizens, and other stakeholders, which may include:

- *Improving air quality and protecting the climate:* increasing energy efficiency and conservation, encouraging voluntary GHG reductions, and advancing US climate policy through regional market-based initiatives.
- *Facilitating corporate GHG management:* managing GHG risks, identifying reduction opportunities, demonstrating business leadership, public reporting, improving stakeholder relations, and generating energy/process cost savings through increased efficiencies
- *Promoting regional economic development:* promoting technological innovation for low carbon technologies, preparing Midwest industries and businesses for an increasingly carbon-constrained economy

The options paper will identify potential objectives, examine and assess key opportunities, applications, and constraints associated with each objective, and make a recommendation on primary and secondary goals and objectives.

1.2. Design Principles

Registry design principles that may be considered include:

- The registry should be policy-neutral so that it doesn't interfere with or pre-determine any existing or future state, regional, or federal climate policies.
- The registry should be designed to promote transparency, consistency and accuracy, allowing stakeholders to assess the success of the registry in meeting its objectives and increasing its credibility.
- The registry should use broadly accepted and used accounting and reporting standards to serve as a technical framework to promote the credibility and consistency.
- The registry should incorporate Midwest-specific/relevant design aspects, to the point that this does not compromise its use of broadly accepted accounting and reporting standards.
- The registry should be built on a flexible and adaptive platform that will be able to meet both present and future program needs.
- The registry should be expandable, allowing seamless interaction and integration with other states and/or regional programs to meet air quality and environmental stewardship objectives as well as facilitate business participation—e.g., the California Climate Action Registry (CCAR) and the Northeast Regional Greenhouse Gas Registry (RGGR).

1.3. Registry Services

GHG registries can provide multiple services to participating entities, and for the Midwest Registry, services provided may include:

- Inventory development guidance and assistance
- Early action protection
- Participating member promotion
- Standards development
- Networking opportunities

2. Program Non-Technical Design Options

The following are five broad, non-technical design decisions that will need to be considered when developing the registry and its associated GHG program or programs. The pathway chosen for these five decisions will have considerable implications on the time, financial, and staffing resources that will be required. The forthcoming discussion drafts and final options paper will address the potential resource implications of each non-technical design option, as well as which design option has been followed by other existing/emerging US registries (e.g., CCAR and RGGR).

2.1. Registry Location and Potential Linkages with other GHG Registries

As indicated in the RFP, there are four main options and resulting scenarios in approaching the issue of registry location:

- Join an existing registry such as CCAR or CCX
- Join an emerging registry such as RGGR
- Create a regional registry at LADCO
- Create a new NGO to operate the Midwest registry

In addition, there are a number of potential linkages that could be made between the Midwest Registry and other existing/emerging registries if the options in bullets 3 and 4 above are chosen. Linking with other registries can be done on two levels a) at the database level and b) the program level; for example:

- The Midwest Registry could share an EATS platform and management entity with RGGR, while still maintaining a regional identity for the registry and using the Midwest registry for GHG programs that are separate from those being implemented by the Northeast states.
- The Midwest Registry could maintain a regional identity with a registry that could serve multiple state and regional objectives and GHG programs, while participating in a broader Registry Alliance that would link voluntary corporate accounting programs through a number of technical design aspects such as a standardized reporting template, a common verification protocol etc.

Finally the options paper will consider the elements that could shape the linkages between the Midwest Registry and the existing Wisconsin Voluntary Emission Reduction Registry (VERR), for example:

- The overlap in data that might occur in the two programs,
- The possible use of the same database platform by the two programs,
- The overlap of objectives, etc.

Options for what those linkages could look like will also be provided.

2.2. Sectors, Sources, and Gasses Covered

In determining which sectors, sources, and gasses should be covered by the Midwest Registry, the RWG may wish to consider which sectors, sources, and gasses are most relevant for the Midwest Registry to be able to achieve its principle strategic objective, which are most relevant to the Midwest region's particular economic situation, which are covered in other existing and emerging state/regional-level GHG registries, as well as which sectors, sources, and gasses might face future regulation (e.g., CO₂ emissions from some or all direct sources¹) and which will most likely not face future regulation (e.g., non-CO₂ GHG emissions from some or all indirect sources²). The options paper will analyze the significance and relevance of reporting both direct and indirect emissions sources in the Midwestern context and establish where ownership issues (control or own direct sources) may be important.

¹ Direct emissions are emissions from sources that are owned or controlled by the reporting company.

² Indirect emissions are emissions that are a consequence of the operations of the reporting company, but occur at sources that are owned or controlled by another company.

2.3. Geographical Boundaries

For determining geographical boundaries for the Midwest Registry, there are three main options which can be pursued separately or in combination:

- Regional level reporting
- State level reporting
- National level reporting

2.4. Verification/certification:

If the Midwest Registry decides to require third party verification, a number of issues and questions may arise, which include:

- What data should be required to be verified?
- Will verification costs be incurred by the participating entities, and if so, how will these costs be reduced to participating entities?
- What is the administrative burden on the Midwest Registry associated to third party verification and what are some of the possible options for dealing with this burden?
- How are other Registries addressing the verification issues, and what existing work can the Midwest Registry draw from? For example, could the Midwest Registry adopt or customize an existing verification protocol, such as the one developed by CCAR, or the risk-based approach being considered by RGGR?

2.5. Potential for the Inclusion of a Project-based Accounting Component

One program design option the RWG will need to consider is whether or not a project-based accounting component will be incorporated into the Midwest Registry in addition to the corporate/ entity accounting component which will mainly be discussed in this options paper. The main immediate consideration, if a project-based accounting component is included, will be in the choice of software used to collect and report data.

Whether or not a project accounting component is incorporated into the Midwest registry will depend not only on the program objectives and principles outlined in the introduction, but also on the availability of time, financial, and staffing resources that would be necessary to include this component.

3a. Program Technical Design Options – Entity Accounting

As the Midwest Registry will be primarily developed as an entity/corporate-based registry, the following six sections outline the main entity/corporate-level accounting decisions that will need to be discussed.

3.1. Definition of Reporting Entity

There are three main options on how to define a reporting entity and at what level of aggregation companies can report:

- Corporate-level;
- Facility-level; or
- Both corporate and facility-level.

3.2. Consolidation of GHG Emissions (Setting Organizational Boundaries)

Consolidation is the process of combining emissions from the lower-level of corporate entities to the higher-level of the parent company. According to the GHG Protocol Corporate Standard (revised edition), two general approaches can be used to set a company's organizational boundaries:

- Equity share approach; and
- Control approach, which includes the financial control and operational control approaches.

In addition, there are two main questions that the registry will need to address in providing specifications and guidance on consolidation:

- Definition of the lowest business unit (i.e., facility or source) and the highest business unit (i.e., parent company); and
- Rules on consolidation of lower-level data into corporate-level data.

3.3. Categorizing and Choosing Emissions (Setting Operational Boundaries):

This issue concerns defining the scope of direct and indirect emissions that fall within a company's organizational boundary. According to the GHG Protocol Corporate Standard (revised edition), the emissions information that the registry may require can be grouped into three broad scopes:

- Scope 1: Direct GHG emissions from sources companies owned or controlled
- Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam
- Scope 3: Other indirect emissions, e.g.,
 - Extraction and production of purchased materials and fuels
 - Transport-related activities
 - Electricity-related activities (e.g. T&D losses) not covered in Scope 2
 - Leased assets, outsourced activities, contract manufacturing, and franchises
 - Use of sold products and services
 - Waste disposal

3.4. Choosing a base year

A base year is a historical datum – either a specific year or an average over multiple years – against which a company's emissions are tracked over time. It is important for entities to choose and report a base year for which verifiable emissions data is available. For the Midwest Registry, the following questions related to base years will need to be answered in the development of the registry's program specifications:

- Should the registry require a specific base year that must be used by all participating entities?
- Should the base year be a specific year or an average over multiple years?
- In what situations should a participating entity be allowed or required to recalculate its base year?

- For base year recalculations, should a “significance threshold” be set to trigger when base year recalculations occur?

3.5. Emissions threshold (de minimus emissions)

This represents a minimum emissions accounting threshold on the basis of which a source not exceeding a certain size can be omitted from the inventory. According to GHG Protocol, technically such a threshold is simply a predefined and accepted negative bias in estimates (i.e. an underestimate).

One option is to allow participants to report emissions using default values and estimates rather than actual measurements for emission sources that comprise less than a certain threshold (e.g.5% or a specified number of tons of GHG) of an entity’s emissions.

3.6. Public Reporting

According to the GHG Protocol Corporate Standard (revised edition), the categories of information that should be reported publicly include:

- Organizational boundaries – the chosen consolidation approach;
- Operational boundaries – Scope 1 (direct emissions), Scope 2 (energy indirect emissions), and, if Scope 3 (other indirect emissions) is included, a list specifying which types of Scope 3 activities are covered;
- Reporting period;
- Emissions data separately for each scope;
- Total Scope 1 and 2 emissions;
- Emissions data for all six GHGs separately (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆) in metric tonnes and in tons of CO₂ equivalent;
- Year chosen as base year, and an emissions profile over time that is consistent with and clarifies the chosen policy for making base year emissions recalculations;
- Appropriate context for any significant emissions changes that trigger base year emissions recalculation (acquisitions/divestitures, outsourcing/insourcing, changes in reporting boundaries or calculation methodologies, etc.);
- Emissions data for direct CO₂ emissions from biological sources (e.g., CO₂ from burning biomass/biofuels), reported separately from the scopes;
- Methodologies used to calculate or measure emissions, providing a reference or link to any calculation tools used; and
- Any specific exclusion of sources, facilities, and/or operations.

The options paper will analyze these six program technical design issues for entity/corporate accounting in detail based on the methodologies provided by the GHG Protocol Corporate Standard (revised edition) and the best practices followed by existing and emerging GHG and/or criteria pollutant programs, such as CCAR, US Climate Leaders, RGGR, US Acid Rain Program, Toxic Release Inventory (TRI) Program, CCX, Wisconsin VERR, DOE 1605b, etc. The key program strategic objective (1.1), design principles (1.2), and registry services (1.3) will provide additional criteria in examining various design options. The options paper will include a matrix showing decisions taken by other programs on similar design issues.

3b. Technical Design Options—Project Accounting

The following seven categories outline the main decisions that would need to be discussed if it was decided that a project accounting component were to be developed and incorporated into the Midwest Registry in the future. As noted above, this would bring about substantial additional resource requirements, which will have to be raised for a project accounting component to move forward. A separate options paper will be prepared on project accounting issues depending on the RWG’s decision to incorporate a project reporting module and availability of additional resources.

3.1 Eligibility Requirements

The eligibility of project activities that would be accepted would require answering several questions—e.g.:

- The project type—e.g., only landfill projects,
- The location of the project,
- The size of the project.

3.2 Selecting a Baseline Procedure

Would the registry use a predetermined methodology or baseline, or would the project developer be able to define their own methodology and baseline emissions?

The registry could pick from two main methodologies currently available for estimating a project’s baseline emissions. The GHG Project Accounting Protocol describes them as:

- a) The Project-Specific Procedure—which produces an estimate of baseline emissions through the identification of a baseline scenario that is identified through a structured analysis of the project activity and its alternatives.
- b) The Performance Standard Procedure—which produces an estimate of baseline emissions using a GHG emission rates of all baseline candidates.

3.3. Defining Significant Secondary Effects (Leakage)

A GHG Program administrator may wish to define clear boundaries around how extensively project developers need to look at secondary effects—i.e., unintended changes caused by a project activity in GHG emissions, removals, or storage associated with a GHG source or sink. These effects are up or downstream of the project activity and if large, may undermine or negate the reductions from the project activity.

3.4 Additionality

A GHG program administrator may want to ensure that projects that are registered would not have occurred “anyway”—in other words, that the project activity emissions and the baseline emissions are not the same. The project-specific and performance standard methodologies apply

two different approaches for determining that the emissions would be different, however other additionality tests could also be included—e.g., the legal requirement and or common practice test.

3.5 Valid Time Length for Baseline Scenarios

Although technical considerations can inform a decision about the valid time length for the baseline emissions identified through either the procedure—project-specific or performance standard—it is likely to be too cumbersome administratively to determine the time length project by project. Setting one time length for all projects also helps to provide consistent expectations for project developers.

3.6 Static Versus Dynamic Baseline Emission Estimates

Choosing between static and dynamic baseline emission estimates requires balancing the environmental integrity of the program with practicality and transaction costs for both the GHG program and project developers. Dynamic baselines ensure higher accuracy by keeping estimates in line with changing circumstances, but increase uncertainty for the project developer and may discourage investment or limit participation.

3.7 Other Requirements

Other requirements that would need to be defined include:

- Terminology usage and classification
- Documentation requirements
- Monitoring / verification requirements
- Reporting and certification requirements
- Double counting – are there provisions for double counting, e.g., if project-based GHG reductions occur at other facilities that might lay claim to the same reductions?

4. Calculation Protocols and Registry Database Options

4.1 Calculation Protocols (Quantification Specifications and Calculation Tools)

There are three main options possible for developing and/or adopting calculation protocols:

- Develop general and sector-specific calculation protocols based on or informed by GHG Protocol Corporate;
- Develop registry quantification specifications, but adopt sector-specific calculation tools from existing and emerging registries/GHG Programs and GHG Protocol Corporate; and
- Adopt and customize registry quantification specifications and calculation tools from existing and emerging registries/GHG Programs and GHG Protocol Corporate.

4.2. Registry Database/Software

Potential registry database/software options for the Midwest Registry include:

- Using an existing software platform, particularly the EPA’s EATS software or the California Climate Action Registry’s (CCAR) CARROT software;
- Working with the EPA and CCAR to develop a hybrid of EATS and CARROT for the Midwest Registry to use;
- Developing a completely new software platform for the Midwest Registry to use.