

Provincial – Industry Offset System Working Group



Workshop Report

July, 2006

Prepared for:



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EXECUTIVE SUMMARY

A group of approximately 20 representatives from Provincial Governments and Industry gathered in June 2006 to discuss the technical elements of project based GHG offset systems and their relation to the developing Canadian domestic offset system.

At the outset it was established by consensus that the Canadian Offset System should be built around the following five principles identified in the Offset System for Greenhouse Gas Overview Paper –2005 (Environment Canada):

- Environmental benefits (real reductions)
- Transformational change
- Maximum scope
- Administratively simple
- Build on existing programs

With these principles in mind, the following over-arching aspects were agreed by all members to be essential to the early success of a domestic emissions trading system in Canada:

- To expedite the Offset System process, a phased implementation of the program should be adopted and initiated immediately with scheduled review and improvement.
- To ensure maximum scope of transformational change a tiered approach to performance measurement should be adopted – balancing administrative burden against project size.
- Existing supporting materials associated with other active National and International mechanisms should be adjusted for Canadian circumstance, where necessary and adopted in the early phase.

Without consideration of these aspects in the early actions of the program authority there will be a deviation from the five core principles of the Offset System.

OFFSETS WORKSHOP – June 23, 2006 – Calgary

On June 23rd 2006 a group of approximately 20 representatives of Provincial Governments and Industry were assembled to discuss the technical elements of project based GHG offset systems that should form part of the Canadian offset system.

The driver for the workshop was a desire amongst the engaged practitioners representing buyers, sellers, marketers/aggregators and policy makers, to identify critical issues for stakeholders in absence of clear policy engagement from the Canadian program authority. Emphasis was placed on supporting the current national offset system principles, and consideration of desirable system attributes based on work to-date domestically (areas of improvement/refinement, etc.) and internationally.

The objective of the workshop was to develop useful, constructive recommendations on policy options that reflect the desires/expectations/needs of those who will be engaged in reducing greenhouse gas emissions across Canada through the domestic offset system.

This document describes the results of the June 23rd meeting and is not a policy position paper, nor is it a recommendation for a “rules re-write”. Instead, it is a reflection of common needs and expectations/ around a domestic offset system with the intent to engage in further policy development where areas in need of discussion remain among the engaged stakeholders and the program authority.

1.0 Background

At the outset of the workshop, background information was reviewed from seven international greenhouse gas offset systems currently in progress or under development including:

- Regional Greenhouse Gas Initiative (US North East)
- Climate Change Action Registry (California)
- Climate Change Exchange (Chicago)
- Voluntary Carbon Standard
- Clean Development Mechanism (and Joint Implementation) (Kyoto)
- Gold Standard
- Previously Proposed Federal Offset System

Most participants had experience in development of components of the Canadian offset system and had a working knowledge of the European Union Emissions Trading System (EUETS). Several of the participants have actual emissions trading experience and involvement in emission reduction projects. The intent of this cross-system examination was to define “common elements” of existing/evolving offset systems that appear to be effective and practical and drive discussion of how those elements fit with the Canadian system.

2.0 Common Desires/Expectations/Needs

The outcome of the discussions that followed is presented in the following categories:

- 2.1 Ongoing industry / provincial participation in system development
- 2.2 Supply and Demand
- 2.3 Fungibility
- 2.4 Price Discovery
- 2.5 Timeliness, integrity and cost
- 2.6 Project Cycle
- 2.7 Protocols (or methodologies)
- 2.8 Validation/Verification
- 2.9 Registry

Some basic conditions were assumed by participants in conducting discussions:

- A regulatory framework aimed at reducing Canadian greenhouse gas emissions is inevitable.
- A market based mechanism is the most cost effective method for achieving these reductions across all sectors of the economy.
- An offsets program designed to complement any targeted industry reductions through regulation is a necessity
- The integrity of an offsets program can be balanced with efficiency to ensure a robust, liquid carbon market in Canada.
- A staged approach to an offset program in Canada will promote adaptability of participants, build capacity and confidence to employ new technology and

develop offset projects, and achieve low cost reductions through increased efficiency in the carbon market.

- Readily available and cost effective protocols (or standard methodologies) are essential to the efficient functioning of an offsets system.

2.1 Ongoing industry / provincial participation in system development

Industry proponents and provincial regulators have a strong interest in developing a robust offset system that meets the Federal governments design principles. Industry proponents (including service providers) bring a wealth of direct practical experience in project design and implementation from within Canada and internationally. Provincial governments bring both expertise in project development issues and a desire to include offsets as part of a system that helps meet provincial expectations on Climate Change.

A system that allows this experience to be represented at decision making tables on an ongoing basis would seem to make sense from a regulatory efficiency point of view as it offers immediate input and options as new issues or review items come forward.

2.2 Supply and Demand

The fundamental driver of an active trading system is the creation of demand and provision for supply of emission reductions. Demand is driven by voluntary or regulated reduction requirements for emitters with relatively high cost abatement options. Supply is created by voluntary or regulated emitters with relatively low cost abatement options and regulated/unregulated participants with project-based abatement options outside the scope of regulated operations.

There was agreement that without well defined demand for ERs driven by emitters seeking low cost methods to reduce GHG emissions to meet regulated targets, the Canadian offset market would be constrained to meeting voluntary reductions and not offer the prices necessary to incent meaningful activity.

Project developers will require certainty that there will be demand for their products (offsets) and without a system in place to demonstrate the volume of that demand, financial support for projects that are largely reliant on greenhouse gas offset sales to be attractive to investors will not secure financing.

2.3 Fungibility

Liquidity (broad, deep supply and demand) drives real price discovery and for greenhouse gas that leads to economically efficient compliance. Offset sellers wish to achieve reasonable return on their investment. Offset buyers wish to achieve compliance at reasonable cost. Artificial barriers to commodity exchange and complex trading rules across multiple jurisdictions create excellent opportunities for arbitrage. Excessive arbitrage benefits the trading community at the expense of the buyer and the seller.

Due to the potentially small size of the Canadian offset market (supply and demand) it is important that Canadian buyers and sellers have access to as much flexibility and fungibility as possible. Enabling access to broader and deeper international markets will

incent suppliers (PPs) to bring forward projects to meet not only the demand of the Canadian (constrained) market but global (broad as possible) demand and Canadian buyers will be able to balance a multinational portfolio that leverages made-in-Canada emission reduction projects and international investments.

To achieve a supply/demand and cost/benefit balance there was agreement on the following:

- No constraint should be placed on the ability of the project proponent to sell Canadian offsets into any market that will accept them. Canada should actively facilitate the exchange of Joint Implementation (JI) and Clean Development Mechanism (CDM) emission reductions into and out of Canada.
- To ensure domestically approved offsets are available for the 2008 – 2012 timeframe the PA must get moving now (and worry about where credits go later).
- The Program Authority (PA) should understand that the more robust / compatible (to CDM/JI) a domestic system is the more options will exist for linking.

2.4 Price Discovery

Price discovery is an important component of any successful trading mechanism especially related to immature market evolution. Price signals drive investment in offset projects and allow emitters to forecast costs and undertake appropriate risk management activities.

There was general agreement that:

- There would be demand for market information.
- Confidence in the currency (offset) is extremely important in early markets.
- Essential market information will be available through private markets and public exchanges.

There was a lack of agreement that:

- Detailed transactional information be disclosed and made “public” via the registry.

2.5 Timeliness, Integrity and Cost

The Offset System faces the challenge of operating in a timely and cost effective manner while ensuring quality projects are approved/registered and credible reductions/removals issued. There needs to be a realization of the traditional trade-offs between the practicalities of **cost-time-integrity**.

It requires a great deal of effort from both the government and the project proponent to develop a project and bring it through the offsets system. It is vital that the correct

balance between ensuring robustness, timeliness and cost burden is found. The elements of cost-time-integrity carry through the discussion topics that follow as well.

COST –

Minimize transaction costs: Within a market based mechanism all the costs associated with project administration will ultimately be passed on to the “final buyers”. Higher transaction cost will increase the cost of compliance. Minimizing the administrative cost burden is essential to ensure an active and liquid market.

Cost disclosure: Project developers bringing forward projects must have a clear understanding of the associated costs to be borne by them (application fee, validation fee, certification fee, and registration fee, etc...). Project developers will NOT submit projects without an understanding of the costs. Thus all “fees” should be defined clearly as soon as possible.

TIMELINESS –

Minimize project approval time: the project documentation development, validation, public review and registration (expert review) are important and the time associated with the process will be material. Minimizing the time associated with “approving” projects is essential to ensure an active and liquid market.

Time Disclosure: A timeframe for project review and approval should be defined and disclosed in the form of a guaranteed turnaround time.

INTEGRITY –

Canadians and international markets will demand the offset system be based on real reductions. Attempts to allocate offset value to a project based on anything except actual real reductions will reduce the integrity of the domestic offset system and affect Canada’s reputation in international markets.

To ensure public, proponent and potential buyers trust in the integrity of an offset system all emissions reductions should meet the following offset criteria identified in the Offset System for Greenhouse Gas Overview Paper –2005 (Environment Canada):

- Quantifiable
- Real
- Surplus
- Verifiable
- Unique

2.6 Tiered approach

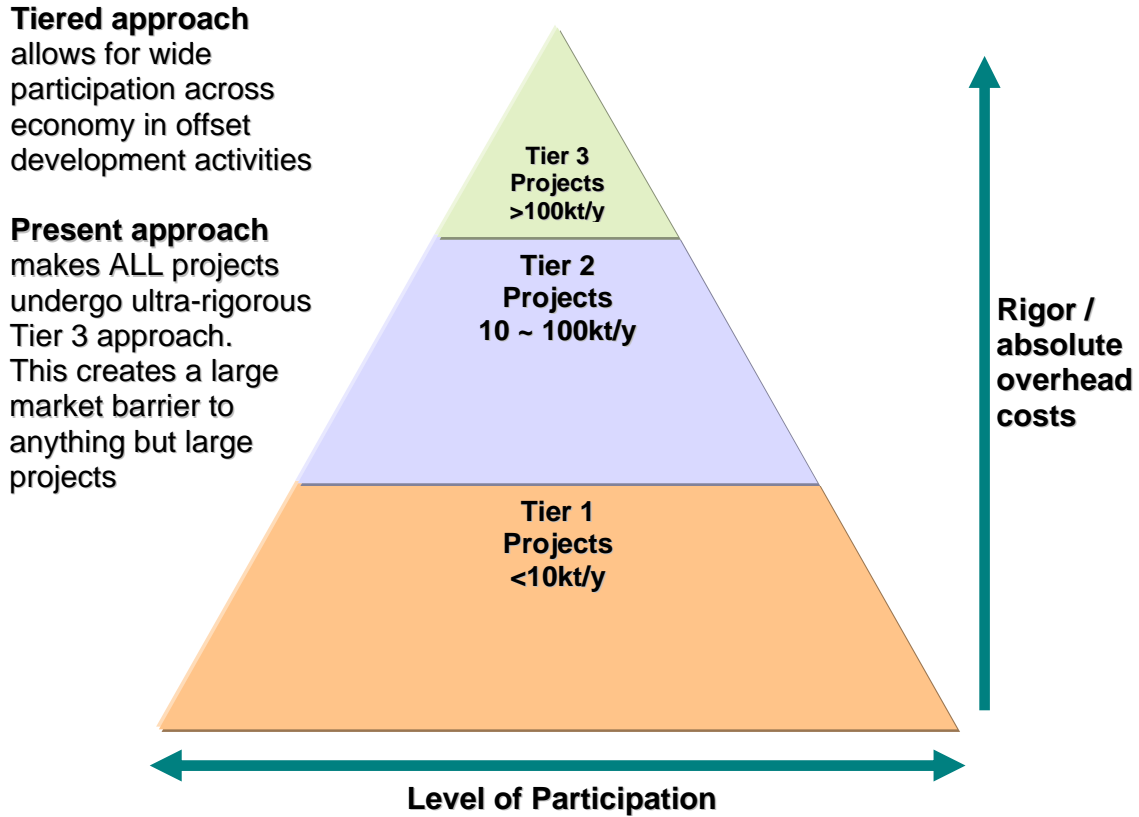
To ensure maximum scope of transformational change a tiered approach to performance measurement should be adopted – balancing administrative burden against project size. This size based tiered approach is used successfully in many other regulatory systems to achieve such a balance, including, the tax, GST and much of the EIA’s in Canada.

The goal is to move towards as deep and wide participation in reduction activities as possible. It is clear that small projects with relatively low returns simply cannot withstand a very costly, high overhead regulatory framework. To address this barrier to market a

tiered “pyramid” approach that matches overhead to potential project size (and implied return) may be useful.

Figure 1 gives a conceptual outline of how a tiered approach may work.

Figure 1: Tiered Approach to Offset Project Performance Measurement



2.7 Project Cycle

The following is a description of the typical regulation-driven offset project cycle (5 steps). Typically voluntary mechanisms are similar but less prescriptive. It is based on a review of existing/evolving systems listed above.

Project document (PD) development:

Project proponents (PPs) prepare and submit information describing the project (existing or proposed). The PD format can be flexible or prescribed by the Program Authority (PA). Examples of PD requirements can be found in the CDM Guidelines for completing Project Design Documents

(http://cdm.unfccc.int/Reference/Documents/copy_of_Guidel_Pdd/English/Guidelines_C_DMPDD_NM.pdf) or within ISO 14064-2: *Specifications for the quantification, monitoring and reporting of project emissions and removals*.

Project Validation and registration

Validation is the process of independent evaluation of a project activity on the basis of the project design document. A determination is made if the project is in conformance with offset system eligibility criteria and if the quantification methodology is acceptable. Validation can either be a formal requirement of the project cycle or carried out at the option of the PP as a risk management tool.

Registration is the formal acceptance of the project by the PA. Registration typically relies on a validation process or tool to ensure the aspects described above are addressed.

Project development, monitoring and reporting

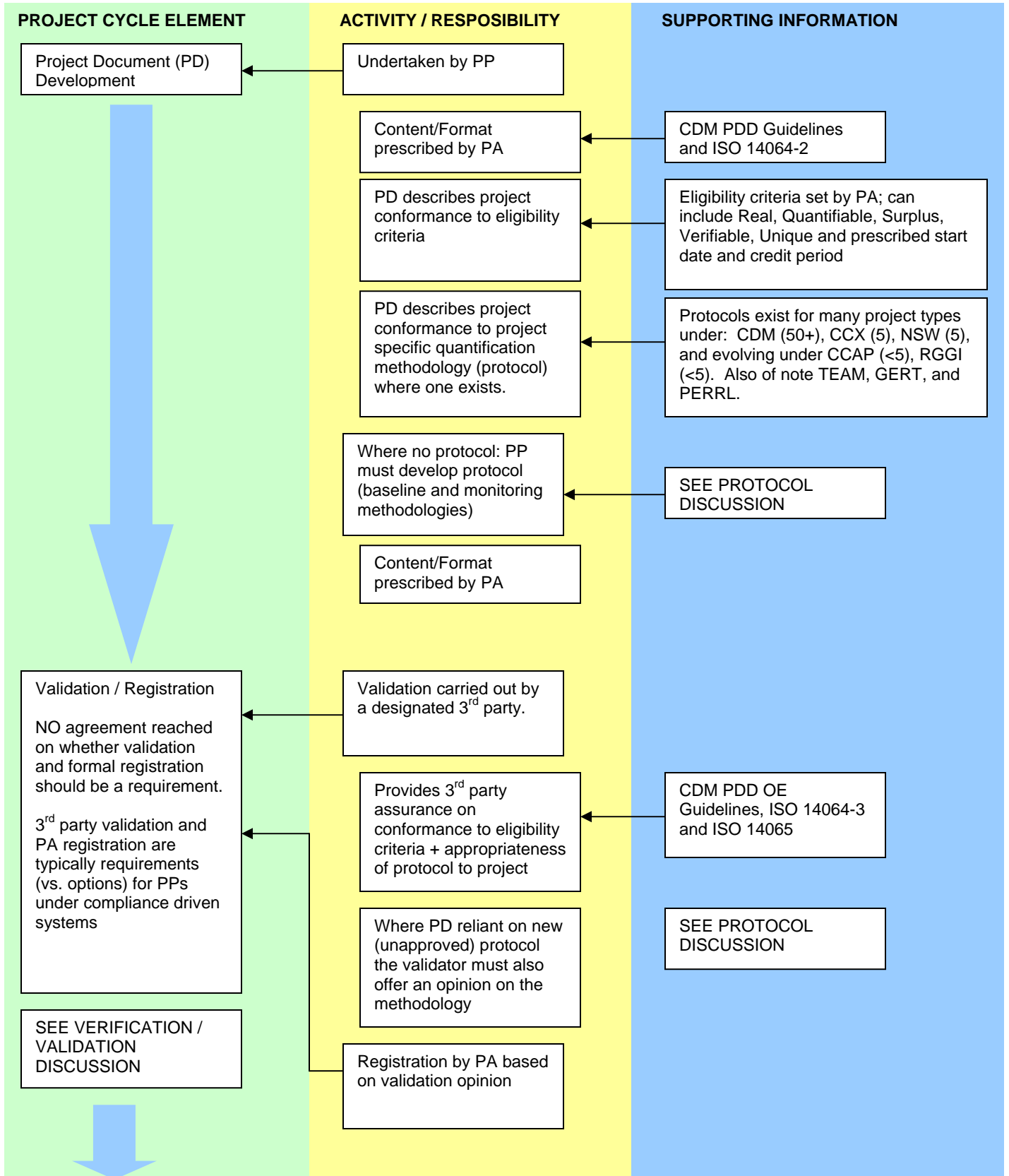
The PP constructs or executes the project and collects operational information required to quantify the Emission Reductions (ERs) per the PD.

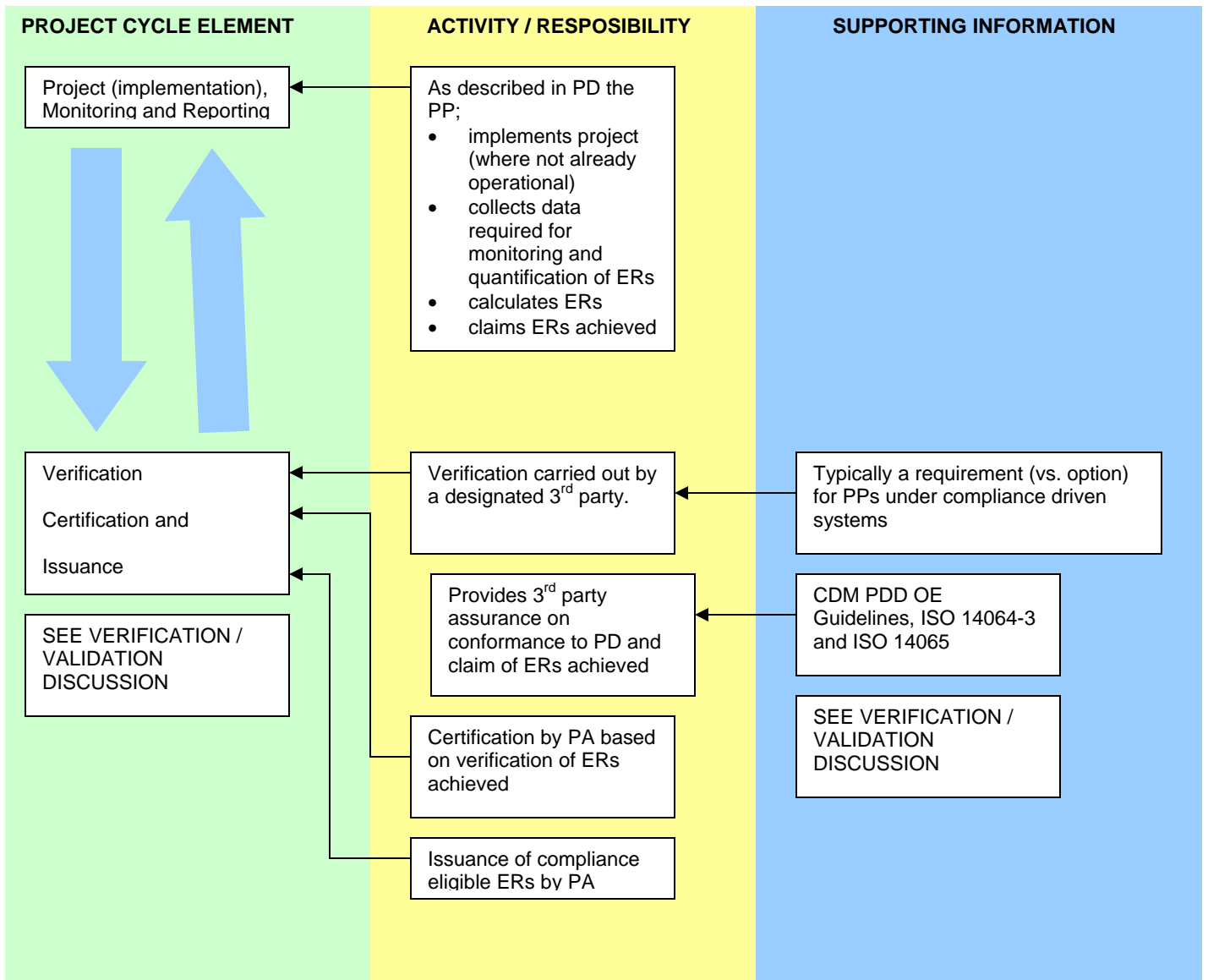
Verification, Certification and Issuance of Emission Reductions (ERs)

Verification is the independent review and ex post determination of the volume of ERs claimed as a result of the project activity during the verification period (typically annual).

Certification is formal acceptance (and assurance) of the ERs by the PA. Once certified the PA issues compliance eligible ER units to the PP. These units are typically tagged with individual identifiers and are posted on a “registry”.

The following Figure details the elements of the project cycle. Where agreement was not reached it has been made clear (ex. Validation as a requirement or option). In addition please refer to related sections of this paper on Verification/Validation and Protocols for more detail.





2.7 Protocols

Emission reductions are quantified based on the difference between emissions in a baseline scenario (representing emissions absent the project) and emissions in a project scenario (emissions where the project is in place). Per the project cycle in Figure 2.1 each project in the offset system must define and defend a methodology for quantifying emission reductions. To ensure consistency in the treatment of similar projects, reduce time and costs (i.e. promote efficiency) and avoid every PP with a similar project from having to develop a quantification methodology, a library of protocols (offset system quantification methodologies - different terms for the same thing) are typically a component of an offsets system. Much work has been done in the development of these standardized methodologies for other offset systems and there are now some 70 distinct protocols available (predominantly via the CDM) internationally.

There was general agreement that:

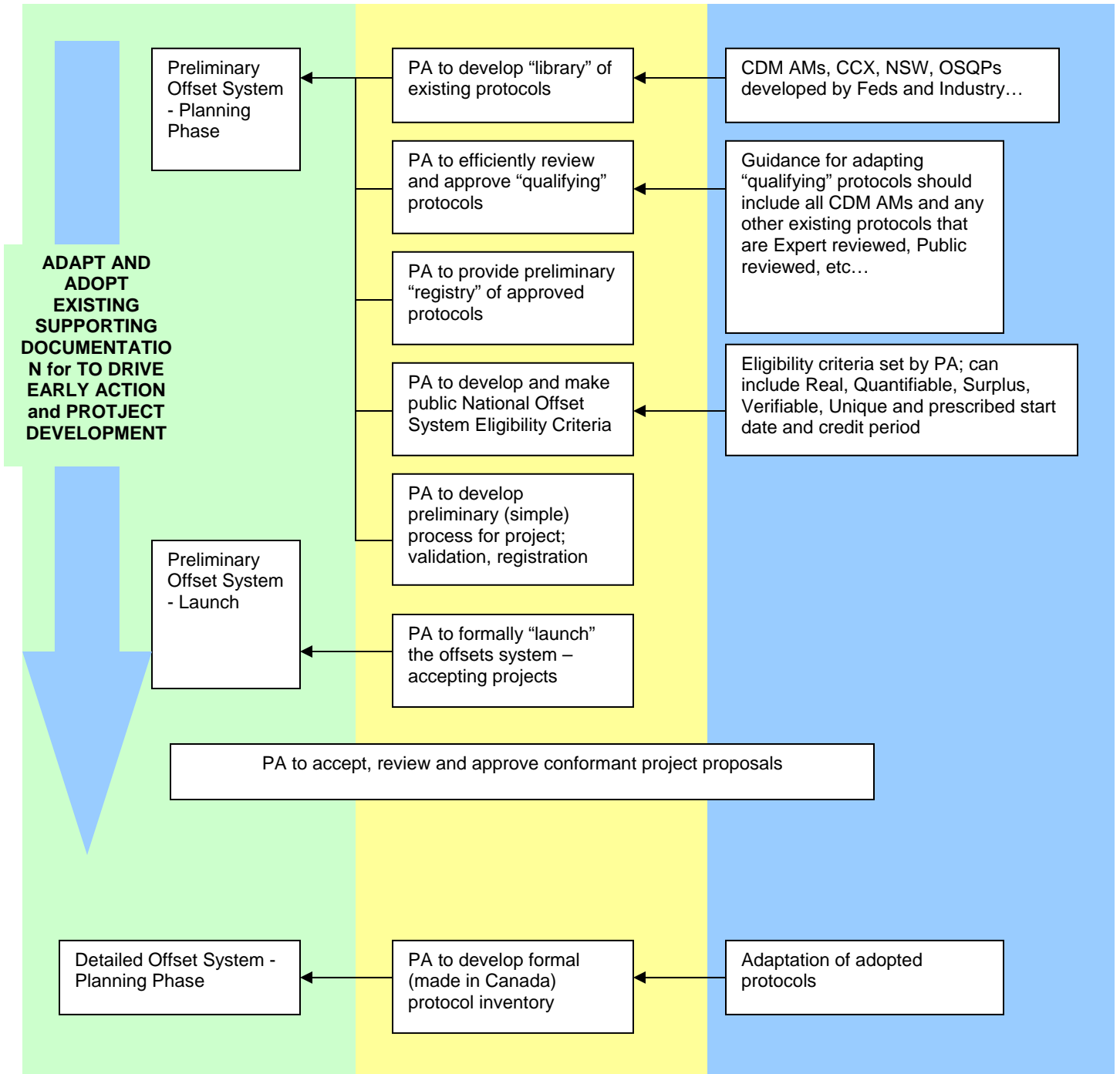
- Protocols (or standard methodologies) are essential to the efficient functioning of an offsets system. A library of Protocols/AMs should be developed¹.
- Based on CDM experience protocol Approved Methodologies (AM) development is an expensive and time consuming process. The CDM is a source for numerous expert and publicly reviewed quality protocols. To expedite the offset system objective of incenting project development and generation of ERs, CDM protocols (AMs) should be adapted for Canadian circumstance and adopted immediately for use by domestic PPs. The PA will need to define the reference against which protocols and methodologies will be adapted.
- Adapted for Canadian circumstance here means a focus on not obliging Canadian offsets claims to undergo a CDM based EIA as this clause was meant to apply to developing nations that do not have a well developed EIA process as Canada. Also, the additionality test under CDM has long been agreed by proponents to not be applicable in Canada.
- Staged process for PA approval (registration) of projects should be implemented allowing for projects conformant to CDM AMs (or other adequate methodologies) to start now and receive “credit”. In the mid term (2/3 years) adopted protocols can be adapted to meet Canadian need – standard, simple, made in Canada. New protocols can be developed by PP (or industry) and submitted for approval by PA.
- To facilitate the use of existing protocols, the development of new protocols and adaptation of adopted protocols, the PA must define project eligibility criteria (Real, Quantifiable, Surplus, Verifiable, Unique along with start date and credit period) as soon as possible.

¹ A library of protocols and methodologies has been developed by Climate Change Central called the Protocol Catalogue: http://www.climatechangecentral.com/protocol_catalogue.html. It provides ample proof that many useful documents already exist.

- An efficient and transparent process involving proponents and Government (Federal and Provincial) should be set up to expedite approval of existing protocols for Canadian use and for approval of novel ones developed in Canada.
- The principle of conservatism defined in ISO 14064-2: *Specifications for the quantification, monitoring and reporting of project emissions and removals* is not appropriate in all cases. Accuracy should not be the victim of conservativeness where substantiation of emission reductions is based on acceptable practices of commerce, legal or regulatory requirements.
- Public posting (and solicitation of relevant comments) of protocols is essential to ensure transparency and robustness of the process. Public comments must be reviewed to eliminate irrelevant comments.
- A dispute resolution process must be established that acts quickly and decisively to address points of contention (ownership and public comment). This process need not be established and managed by the PA.
- With regard to industry developed protocols issues around ownership and proprietary information must be addressed.
- Agreement was not reached with regard to the format of the protocols.
 - A “principles” based approach would ensure broad project type applicability but decrease standardization and likely increase PD development cost and validation.
 - A “prescriptive” approach (such as that currently employed by the CDM) would allow for PPs to develop PDs in “cookie cutter” type approach and facilitate validation. However projects that did not fit the mold would be deemed non conformant and would have to develop a new approach increasing their cost and the of the PA review and approval process.
- Projects that differ in few/identifiable elements from those with existing applicable protocols should be able to adapt existing protocols and propose a related / alternative approach without having to undergo the complete review and approval process.

The following Figure is intended to detail the process. Where agreement was not reached an attempt has been made to make this clear.

FIGURE 3 – PROTOCOL Development/Adaptation PROCESS



2.8 Validation and Verification

As discussed above, validation and verification involve the independent evaluation of a project activity on the basis of the project design document (validation) or ex post determination of the ERs claimed as a result of the project activity (verification).

There was agreement that:

- Current capacity to conduct validation and verification in the private and public sector is limited. The early transitional phase of the offset system must reflect this.
- The evaluation process (validation and verification) should be carried out by the private sector.
- The PA should develop a list of “qualified/recognized” firms/individuals or a professional designation.
- The PA should adapt (vs. develop) existing requirements for validators and verifiers. Existing requirements include the CDM OE eligibility requirements and ISO 14064-3 and ISO 14065.
- The PA should adopt (vs. develop) and prescribe an approach to validation and verification. Existing requirements include the CDM OE requirements and ISO 14064-3.

The role of project validation did not have a consensus position; this may be resolved using a tiered project performance measurement approach. However, future work will need to bring this to a final position. Specifically there was a lack of agreement that:

- Validation should be a requirement of the project cycle (vs. an option or risk management tool) for PPs.
- Validation/verification should follow the “tax” model or the “financial” model. Under the tax model the report is prepared by the PP and is subject to spot audit by the PA. Under the financial model, third party verification is a necessary part of the reporting process.

2.9 The Offset System Registry

A registry of domestic offsets “allocated” to PPs is a necessity in any trading system.

On the issue of a registry there was agreement that:

- A Registry is essentially a simple tracking device and potentially a ‘document database’, where methodologies, protocols and project related documents can be posted.

- A Registry could be developed by the private sector in a short period of time at a modest price.
- The government trust in the Registry must be earned through their involvement in the process building, operation, and maintenance.

3.0 Conclusions and Next Steps

Document is a working paper, with the intent to further refine through engagement of a broader group of interests.

This document represents some initial areas of agreement (and some areas where further work is required) to inform future policy.

It serves as a check of the progress to date on the system against the five original stated principles.

Going forward the following four areas are of immediate interest/opportunity and should be prioritized:

- 1) Meaningful representation by provinces and industry on near term and longer term decisions related to offsets.**
- 2) Use of existing processes where possible to ensure speedy implementation of the system, e.g. use of adjusted CDM protocols etc.**
- 3) Use of phased/tiered approach that drives timely project launch and incents small, medium and large size projects.**
- 4) A summit meeting with interested parties to expedite a resolution on the key issues laid out in this document that meets the Federal Governments fast track timeline for autumn policy announcements.**

APPENDIX A: Critical Issues

The following issues were identified as critical to the success of the offset system by the participants. There was no attempt to build agreement around the issues.

- Access to international markets (JI).
- Integrity of the offset system and the resulting “credits”.
- Robust and dependable registry / tracking system.
- Practical, economic, applicable protocols.
- Issue of permanence and associated long term liability.
- Third party audit process vs. government managed.
- Eligibility of waste heat recovery, EE type projects and CCS projects.
- Eligibility of large scale projects – nuclear power.
- Mobilization of low GHG intensity technologies.
- Initiation of offset system “preliminary phase” in next 12 months.
- Must provide buyer low cost solution through efficient system.
- Ease of access to transparent market.
- Straight forward protocol/methodology development/approval process.
- Appropriate balance of system efficiency and rigour.
- Allowance for temporary “removals” to play a role in easing compliance.
- Minimized transaction costs.
- Price discovery.
- Public transparency, reporting and buy-in.
- National process / system must be acceptable to provinces.
- Linkages to broader National technology / R&D strategy.
- Need for a long term market certainty (post 2012).
- Compliance driven demand.

APPENDIX B: Participants

AESA
Agcert
Alberta Government
Baseline Emissions
B.C. Hydro
British Columbia MOE
Climate Change Central
Duke Energy
Epcor
ICF International
Nexen
Ontario MOE
Parkland
PetroCanada
Shell
Suncor
The Delphi Group
TransCanada
TransAlta