

GHG Protocol Initiative

Project Quantification Standard

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World Resources Institute



Presentation overview

- I. Introduction to GHG Protocol
- II. Offsets design: technical versus political challenges
 - eligibility
 - additionality
 - secondary effects
- III. Renewable energy



I. GHG Protocol Initiative

- Convened in 1998 by WBCSD & WRI
- Mission: to develop international GHG accounting & reporting standards for business through an inclusive & transparent multi-stakeholder process
- Two modules: *corporate inventories* & *GHG projects*



Adoption of GHG Protocol corporate standard

Voluntary Climate Initiatives

- ♦ U.S. EPA Climate Leaders Program
- ♦ WWF Climate Savers Program
- ♦ Respect Europe Business Leaders Initiative for Climate Change (BLICC)
- ♦ USAID Greenhouse Gas Pollution Prevention Program

GHG Registries

- ♦ California Climate Action Registry
- ♦ Wisconsin GHG registry
- ♦ WEF Global Registry

Reporting Initiatives

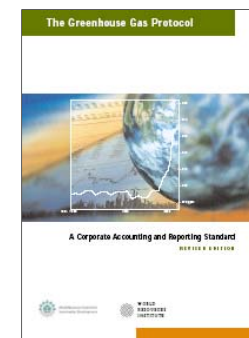
- ♦ Global Reporting Initiative
- ♦ CERES Sustainable Governance Initiative
- ♦ French REGES Protocol

Industry Initiatives

- ♦ WBCSD Cement Protocol
- ♦ International Forum of Forest and Paper Associations
- ♦ International Aluminium Association
- ♦ International Iron and Steel Institute
- ♦ International Petroleum Industry Environmental Conservation Association
- ♦ NZ Business Council for Sustainable Development
- ♦ European, Japanese, Canadian, and Australian Cement Industry Associations

Trading Schemes

- ♦ EU Emissions Trading Scheme
- ♦ UK Emissions Trading Scheme
- ♦ Chicago Climate Exchange





Businesses using GHG Protocol Corporate Standard

Automobile Manufacturers

Ford Motor Company, USA
Volkswagen, Germany

Cement

Cemex, Mexico
Cimpor, Brazil
Heidelberg Cement, Germany
Holcim, USA (and worldwide
Holcim facilities)
Italcementi, Italy
Lafarge, France and North America
RMC, UK
St. Lawrence Cement Inc., Canada
Siam Cement, Thailand
Taiheiyo, Japan
Votorantim, Brazil

Consumer Goods Manufacturers

Bank of America
Body Shop, UK
Cargill, USA
Eastman Kodak, USA
Fetzer Vineyards, USA

IBM, USA
IKEA International, Sweden
Johnson & Johnson, USA
Miller Brewing Company, USA
Nike, USA
Norm Thompson Outfitters, USA
Pfizer Inc., USA
Raytheon, USA
SC Johnson, USA
Sony Electronics, Japan
Starbucks Coffee, USA
Staples Inc., USA
Sun Microsystems
Target Corporation, USA
Unilever HPC, USA
United Technologies Corporation, USA

Energy Services

Birka Energi, Sweden
Cinergy, USA
Edison Mission Energy, USA
ENDESA, Spain
Exelon Corporation, USA
FPL Group, Inc., USA
General Electric, USA
Green Mountain Energy, USA
Kansai Electric Power, Japan
Mirant, USA

N.V. Nuon Renewable Energy,
Netherlands
PSEG, USA
Seattle City Light, USA
Tokyo Gas, Japan
Wisconsin Electric, USA
We Energies, USA

Oil and Gas

BP, USA
Norsk Hydro, Norway
Shell Canada, Canada
Suncor, USA

Industrial Manufacturers/ Mining

Air Products and Chemicals, Inc.
Alcan Aluminum Corporation, USA
Alcoa, USA
Ball Corporation, USA
Baltimore Aircoil, USA
Baxter International, USA
Bethlehem Steel Corporation, USA
CODELCO, Chile
DuPont, Inc.
Interface, Inc., USA
International Paper, USA
ITC Inc., India

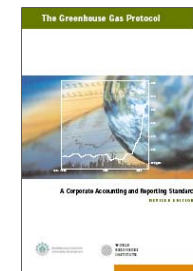
Lockheed Martin Corporation, USA
Philips & Yaming, China
Simplex Paper & Pulp, India
STMicroelectronics, Switzerland
StoraEnso, Finland
Tata Steel, India
United States Steel Corporation

Non-Government Organizations

World Business Council for Sustainable
Development, Switzerland
World Resources Institute, USA

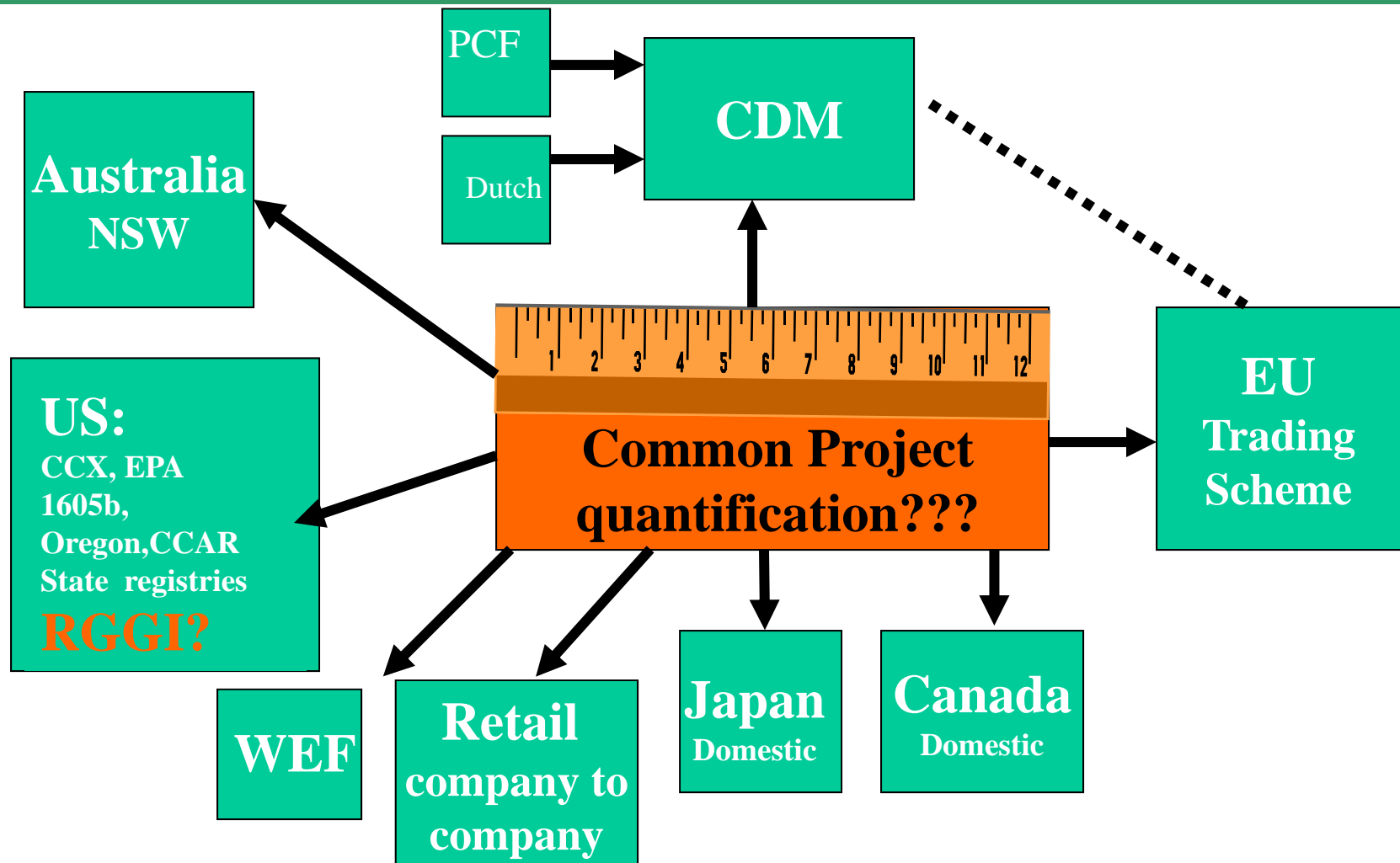
Services

500 PPM GmbH, Germany
AstraZeneca, UK
Casella Waste Systems, Inc., USA
DHL, USA
European Bank for Reconstruction &
Development
PE Europe, Germany
PowerComm, Canada
Price Waterhouse Coopers, New Zealand
Verizon Communications, USA





GHG Protocol Project standard: the need for a common standard





Objectives of GHG Protocol Project Standard

- Simplify GHG quantification & reduce transaction costs
- Improve environmental integrity
- Promote consistency across different trading schemes
- Increase investor confidence/reduce uncertainty



II. Offsets program design – key challenges

- Eligibility
- Additionality & selection of baseline scenario/emissions
- Accounting for secondary GHG effects



Technical vs. policy issues – the boundary is gray

Technical (GHG Protocol)

Policy (RGGI)

Eligibility

Additionality

Secondary effects

Crediting period

Monitoring

Reductions

Credits



Eligibility - considerations

- **Which sectors** - sources, gases, sinks, indirect reductions
Consider reduced credit price vs. program complexity; double counting with indirects; permanence with LULUCF
- **Offsets location** - inside or outside capped region
Consider reduced credit price vs. administrative costs, potential loss in environmental integrity and sending revenues out of region
- **Support sustainable development goals**
Consider whether preference be given to projects with multiple benefits; e.g., LULUCF/renewable projects
- **Timing** - project start date & length of crediting period?
Consider credit for early action, additionality, cost of credit



Emerging GHG Protocol project standard

7 steps:

1. Provide an overview of project
2. Check project eligibility
3. Check project is additional to legal requirements
4. Identify the baseline scenario/emissions
5. Assess secondary effects and define project boundary
6. Estimate reduction and classify based on ownership
7. Develop monitoring plan & quantify reduction



GHG Protocol & Eligibility

- Eligibility is the purview of GHG programs
- GHG Protocol is neutral on most eligibility issues
- Requires specific information on project context of project e.g. use of public funds, relevant regulations, market conditions, purpose etc.
- Project developer asked to check specific program requirements



Additionality

What is it and why does it matter?

- Criterion to assess and justify whether or not the GHG reduction would have occurred in the absence of the project
- Ensures environmental integrity of the reduction when used as an offset



Additionality

Challenges

- Most parties involved in the transaction (buyer, broker, seller, and sometimes host country) have an incentive to overestimate the reduction and maximize their own financial gain
- As the baseline emissions is always hypothetical (what would have happened without the project) there can never be complete certainty



GHG Protocol & Additionality

No Silver bullet, addressed in several ways:

- Qualitative questions e.g. market context, use of public funds
- Additional to legal requirements screen
- Method to select *potential* baseline candidates
- 3 alternative procedures to select *actual* baseline:
 - Performance standard (multi-project baseline)
 - Project specific
 - Retrofit(hybrid using elements of above 3 procedures)
- Project emissions must be less than baseline emissions



GHG Protocol performance standard

- Establishes a performance standard applicable to similar project types in a defined geographical area, e.g., KgCO_2/KWh for an electricity project
- Can be used by project developer or GHG program
- Additionality is addressed on a *sector-specific* basis using a stringency that is better than average performance
- Setting the stringency level is both political & technical
- Standard needs updating over time



GHG Protocol project-specific procedure

- Standardized procedure to establish a baseline for a specific project
- Additionality is determined on a project specific basis using a barriers & investment ranking test
- Similar to approach used in Kyoto Protocol Clean Development Mechanism
- Tends to be used for baseline justification versus baseline selection



Offsets design considerations

- minimize transaction costs – for project developer & program administrator e.g., baseline development, approval, verification
- minimize potential for gaming
- ensure environmental integrity
- avoid confidentiality concerns
- reduce uncertainties & stimulate investment



Performance standard vs. project-specific procedure

Criteria	Performance standard (established by program)	Project Specific
Cost of baseline development	Low – for project developer High –for GHG program but cost-effective in sectors with many projects; needs periodic updating	High – for project developer Medium/high – for GHG program
Cost of project approval process	Low – straightforward once standard established	High – based on project specific information
Verification costs	Low	High
Potential for gaming by project developer	Low	High



Performance standard vs. project-specific procedure

Attribute	Performance standard (established by program)	Project Specific
Environmental integrity	Variable - depends on stringency level	Variable – depends on subjective project-specific arguments
Transparency	High	Low - if investment ranking test used – creates business confidentiality concerns
Certainty for developer	High – additionality pre-determined at sector level	Low - project-specific additionality challengeable
Applicability	Limited - to sectors with homogenous output and no sudden changes	Broad

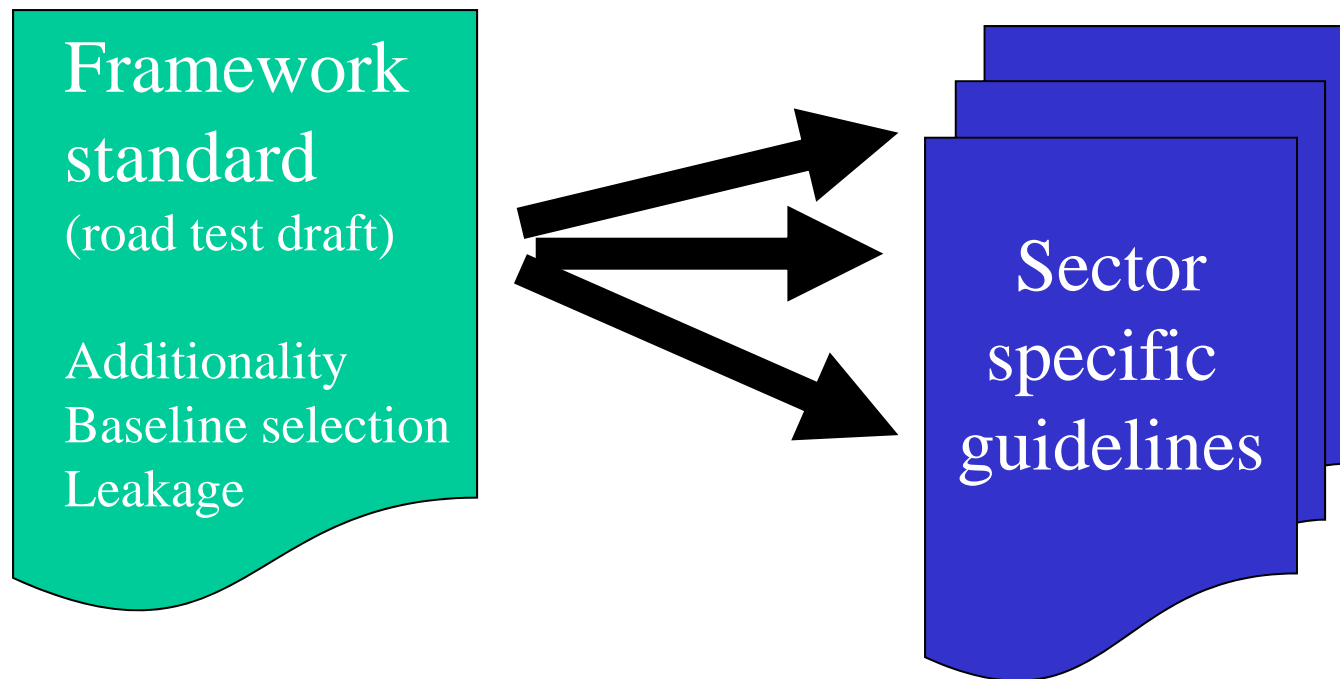


GHG Protocol & secondary GHG effects

- Provides simple tools to help identify secondary effects (positive/negative)
- Provides guidance on quantifying & assessing the relevance of secondary effects
- Emphasizes the avoidance of leakage through project design



GHG Protocol Project Standard: Next steps



- Road-testing completed January 2004, 35 road-testers, 10 countries, 100+ reviewers
- Preparation of a first edition 2Q 05



III. Incorporating renewable energy in emissions markets

Prioritized options

Comments

1. Output-based allocation



- Allowance to generators in Region, including RE
- Set-aside for EE initiatives
- Periodic revision
- >25 MW threshold for fossil generators, >10 MW for RE
- Simple & evens the playing field



Incorporating renewable energy in emissions markets

Prioritized options

Comments

2. Allocation based on historic emissions or heat input with set-aside for RE

- At least 20% of allowances set aside
- Output-based
- RE & EE eligible

3. Offsets for RE

- Awarded based on electricity output
- RE projects outside the region



Recap:

- Offsets are a good way to drive reductions beyond capped sector – but also consider alternative approaches, e.g., product standards, opt-ins, output based allowances or set asides (for RE)
- Performance standard has many attractions over project-specific approach – but is not a panacea for all types of offsets
- Start with performance standards for homogenous sectors with potential for many projects



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Thank You!

**Comments
&
Questions**



**For more information visit:
www.ghgprotocol.org**