GREENHOUSE GAS PROTOCOL

GHG Protocol Standard on Quantifying and Avoided Emissions

Summary of online survey results

March 2014

Contents

GREENHOUSE GAS PROTOCOL

Executive Summary

Since the launch of the Scope 3 and Product Life Cycle Accounting and Reporting Standards, stakeholders have been expressing interest in quantifying and reporting avoided emissions. In November of 2013, GHG Protocol launched an online survey to formally assess the need and demand for a standard on this topic.

The results of the survey indicate a broad interest and need for a standard on avoided emissions. 58 percent of survey respondents are already quantifying avoided emissions despite the lack of consistent methodology. 79 percent believe there is a significant and long term need and/or demand for standardized methodologies or guidance to measure and report avoided emissions. In addition, a majority of respondents believe that measuring and reporting avoided emissions can be an important driver for strategic business decisions that can help drive global emissions reductions.

Avoided emissions are emission reductions that occur outside of a product's life cycle or value chain, but as a result of the use of that product[1]. Examples of products (goods and services) that avoid emissions include low-temperature detergents, fuel-saving tires, energy-efficient ball-bearings, and teleconferencing services. Other terms used to describe avoided emissions include, but are not limited to, climate positive and net-positive accounting.

The 21 percent of respondents that do not see a need or demand for a standard on this topic were concerned that standardization would validate greenwashing[1] and pull focus away from operational reductions. Others wondered whether it was too early in the practice of quantifying and reporting avoided emissions to have a standard, and whether the existing sector specific standards and guidance are sufficient.

GHG Protocol is considering potential next steps based on the results of this survey. If a decision is made to move forward with a standard, next steps will include forming an advisory committee and raising funds to support the development process. If you or your organization is interested in learning more about this effort, please contact ldraucker@wri.org.

[1] Greenwashing is defined as is the overstating of the environmentally or socially conscious attributes of a firm's offering and the understating of the negative attributes for the firm's benefit. (http://lexicon.ft.com/)

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Introduction

Companies are increasingly interested in quantifying and communicating the positive greenhouse gas (GHG) impacts of their products and services. For example, two thirds of companies that reported to CDP in 2013 (over 1,100 companies) said that the use of their products and/or services directly enable GHG emissions to be avoided by a third party. However, the GHG Protocol makes no provision for estimating "avoided" emissions, and only provides a methodology for accounting for actual emissions associated with individual products through the Product Life Cycle Standard. Because there is currently no agreed upon methodology for assessing "avoided" emissions from products, individual companies and industry initiatives are developing their own methodologies. This has led to inconsistency in methods and in some cases a lack of transparency.

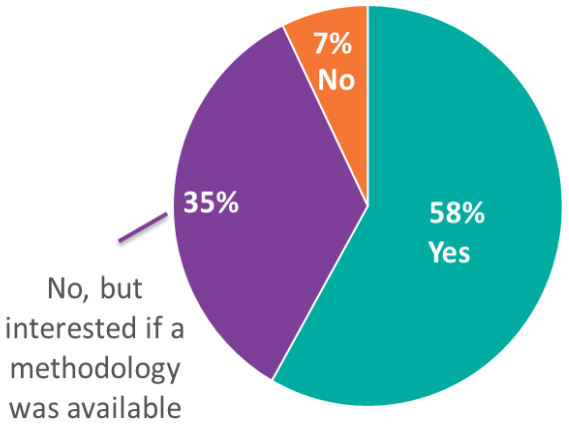
In November 2013, GHG Protocol launched a survey to assess the need and demand for a standard on quantifying and reporting the avoided emissions of products. The survey was organized into 3 sections: current practices, the need and/or demand for a standard, and the scope of a standard. We received 377 responses from private sector organizations (47 %); consultants and practitioners (29 %); government, NGO, and civil society organizations (16 %); as well as academia and other organizations (8%). The respondents represented 46 countries , including 32 % from Europe, 25 % from North America, 19 % from Asia, and 10 % from South America.

Summary of Survey Results

Current practices

Despite the lack of an international standard or consistent methodology for quantifying avoided emissions, the practice has grown and become prevalent in many organizations and companies. When asked if a company or organization has quantified avoided emissions, 58% of survey respondents said yes, 35% said no but would be interested in doing so if a methodology was available, and 7% said no. This indicates a strong preference for the practice, with 93% of all respondents either currently quantifying avoided emissions or interested in doing so if a methodology is available.

Figure 1: Quantifying avoided emissions



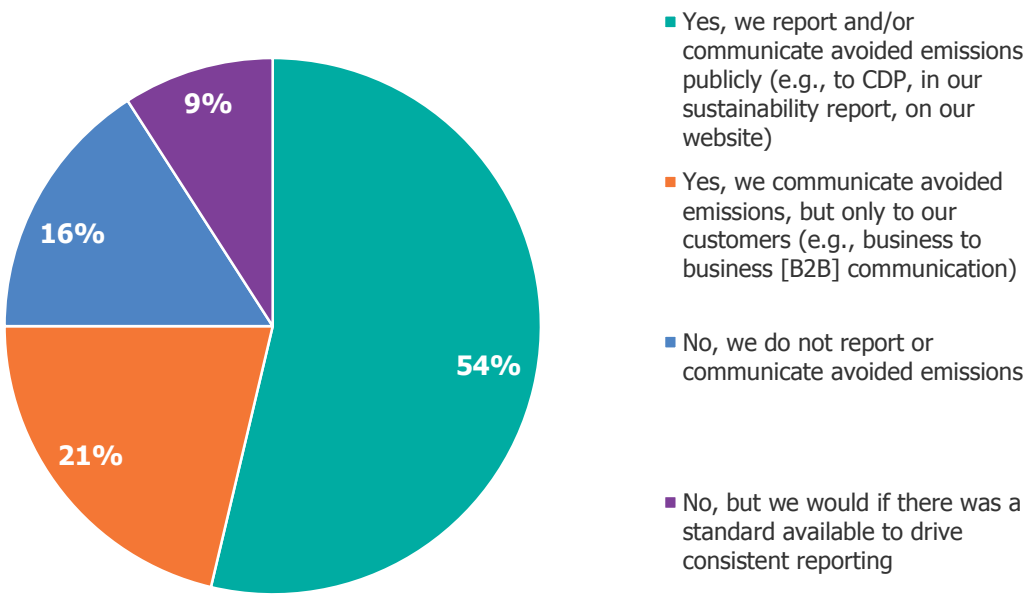
Of those currently quantifying avoided emissions, 26% do so by applying the methodology of other GHG Protocol Standards such as the Corporate Standard, Product Standard, or the Project Protocol. Other methodologies that respondents cited include PAS 2050, ISO 14040, 14044, and 14067, CDM methodologies,

consequential life cycle assessment (LCA), global reporting initiative (GRI), sector guidance, or baselines and methodologies developed on their own. However, neither the GHG Protocol standards, PAS 2050, nor any of the ISO standards cited currently provide guidance or methodologies to quantify avoided emissions. This is an indication that companies are adapting existing standards to fill a gap in quantification methodologies, which can lead to inconsistencies.

The main objectives given for quantifying avoided emissions was demonstrating the benefits and providing the business case for low-carbon products and communicating these benefits to customers. Other objectives include providing a more holistic view of their products (direct and indirect) and supporting mitigation goals, performance tracking, and decision making within a company. The main reason given for not quantifying avoided emissions is the challenge in doing so and the lack of methodology to inform the practice.

Of those respondents that quantify avoided emissions, 75 percent report or communicate this information either publically or business-to-business (B2B) directly to their customers. Avoided emissions are reported publicly in an array of forums. Companies are reporting in annual sustainability reports and communications, in their submissions to CDP[2], on their website, through environmental product declarations, and in product factsheets.

Figure 2: Reporting and/or communicating avoided emissions



Respondents that only communicate B2B do so because of challenges in communicating such technical topics and the fear of being accused of greenwashing. Some of the respondents were

[2] Formally known as the Carbon Disclosure Project

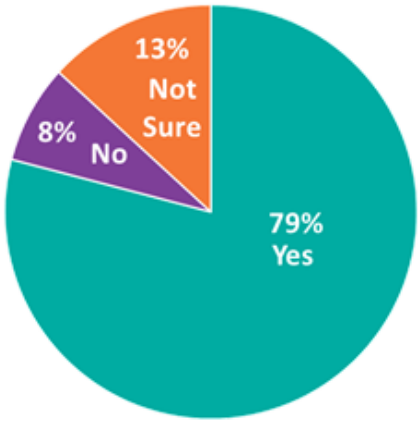
consultants and therefore not at liberty to make decisions about disclosures of client information.

Similar to the drivers for quantifying avoided emissions, respondents noted that reporting this information can help inform customers' purchasing decisions to drive a market for low-carbon products. Other reasons listed include reporting to CDP, meeting GHG reduction goals, informing internal product improvement, justifying investments in more energy efficient infrastructure, and showing other organizations that it makes economic sense to take action ahead of policies.

Need and demand for a new standard

When asked if they thought there is a significant and long-term need and/or demand for standardized methodologies or guidance for measuring and reporting avoided emissions, 79% of survey respondents responded yes, 13% responded not sure and 8% responded no.

Figure 3: Response to whether there a need and /or demand for a standard or guidance to quantify and report avoided emissions.



To further understand the reasons for the "no" and "not sure" answers, the survey asked those individuals to select between 6 responses that most aptly fit their reasoning. These are depicted in Table 1. Please note that the responses to this question only represent 13 % of the total survey participants. Other responses included feeling that many organizations are still trying to sufficiently address their scope 1, 2, and 3 emissions and this could detract from their ability to focus on these impacts, and concerns over the additional work that a new standard could generate for companies.

Table 1: Reasons given for why there is not a need or demand for a standard at this time

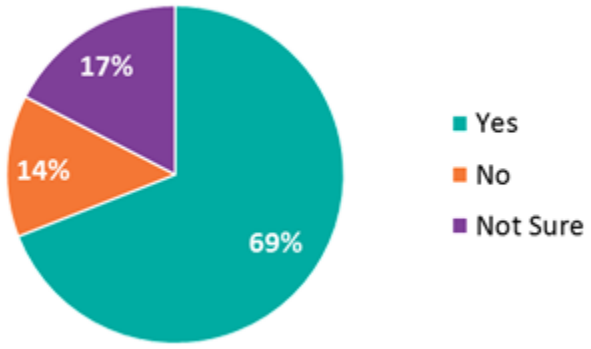
Reason why there is not a need or demand	Percent of responses (13 % of total survey responses)
It is too early in the practice of avoided emissions to develop a standard, but guidance may be helpful	36%

I disagree with the concept of quantifying and reporting avoided emissions (e.g. I think it is greenwashing)	30%
Existing standards and guidance already sufficient to address this topic	23%
Investors and other stakeholders are not interested	6%
The topic is not relevant to my organization	4%

The majority of survey respondents, 69%, indicated that they perceive the measuring and reporting of avoided emissions to be an important driver for strategic business decisions.

When asked what business activity quantifying and reporting avoided emissions would be most relevant for, respondents overwhelmingly indicated sustainability measurement and evaluation. Other popular answers included product research and development and marketing or increasing sales.

Figure 4: Responses to whether measuring and reporting avoided emissions is an important driver for strategic business decisions.



The final question on the need and demand for a standard or guidance was whether respondents thought the quantification and reporting of avoided emissions can drive global emission reductions. The majority (over 70 percent) of this open form question said yes or absolutely. Some of the reasons given include:

- Standardization will provide a market advantage to products, vendors, and services that require fewer GHG emissions by providing a creditable platform for companies with low emission products and services to explain why their products are favorable
- It will promote competition among products and further sustainable innovation
- It will inform better reduction strategies for businesses, and decision making for businesses, stakeholders, and customers
- It will limit the ability to greenwash by helping to ensure claims for reduced emissions are accurate
- It will install confidence and generate an influx of capital and investments that would advance sustainable and efficient products
- Public reporting would enable the public to demand this action from companies
- If there is a way to connect reduced emissions with increased sales, it may encourage participation and engagement in solution solving by corporate executives

Some respondents felt that a standard *may* help drive reductions. To do so, the standard would need to ensure that claims being made are meaningful and not frivolous and that by reporting avoided emissions we are not encouraging increased consumption. One respondent put it well when they said "Honestly, I do not know. The quantification and reporting of avoided emissions can help consumers to make better decisions with regard to products that enable GHG emission reduction compared to another product. However, whether this will help to drive global emissions reductions very much depends on consumer behavior, re-bound effects etc." Another respondent mentioned that the pace and scale of adoption are other important aspects that would impact its capacity for overall emissions reductions.

Other respondents felt that a standard would not drive global emissions reductions. Some of the reasons given included:

- A standard will lead to gaming of the system and an investment in marketing campaigns rather than focusing on emissions reductions
- It is better to capture actual impact at the manufacturing level and then encourage buyers of goods and services to make responsible choices.
- It is better to focus on product comparison. Information on 'avoided emissions' does not add any extra value.
- It will ultimately lead to double counting and potential rebounds (e.g., avoided emissions locally may result in the same emissions simply being displaced geographically or temporally).

Topics a standard should address

Survey respondents were asked to identify which topics should be included in a standard on quantifying and reporting avoided emissions. The results are shown below, organized by high priority. While some topics were a clear priority (e.g., clarification of terms, reporting requirements), many others were ranked high – to - low by a similar number of respondents. Some respondents felt this was a comprehensive list and all should be addressed. Additional responses on what should be addressed included how the standard related to and can be combined with other elements of GHG reporting (i.e., cannot be standalone without a full value chain inventory), guidance on determining relevant stakeholders (for avoided emissions reporting), and easy-to-understand guidance and calculation methodology.

Should the following be included in a standard on quantifying and reporting avoided emissions?	Number of Respondents				
	Yes - high priority	Yes - medium priority	Yes - low priority	No	Don't know
Clarification of the definition of avoided emissions and other similar terms (e.g., positive accounting, hand-printing)	173	48	7	0	2
Reporting requirements/guidance (e.g., baseline transparency,	157	67	4	0	2

reporting product level avoided emission in a corporate inventory report)					
Calculation tools	132	55	27	11	5
Requirements/guidance/best practices for selecting avoided emissions baselines	122	84	20	2	2
Guidance on verification/assurance of avoided emission calculations	112	75	36	5	1
Requirements/guidance on how avoided emissions can, or cannot, be counted towards a corporate reduction target	108	91	24	4	4
Guidance on attributing emission reductions to value chain partners	92	81	39	7	8
Case studies	90	73	61	3	1
Industry benchmarks	81	85	32	18	12
Inclusion of multiple environmental impacts in calculating avoided emissions	70	76	50	20	12
Guidance/best practices for product related target setting	61	93	59	12	5
Framework for estimating carbon effects of future product portfolio and business model choices	60	86	66	12	5
Guidance on the impact of the "rebound effect" on estimated avoided emissions	53	88	49	14	24

Conclusions and Next Steps

The results of this survey represent a clear demand for a standard on quantifying and reporting avoided emissions; however, several concerns were raised. Some of these concerns will be considered before deciding whether or not to proceed with a standard, while others could be addressed through the standard itself. For example, one respondent put it well by saying "Concerns about greenwashing are not a reason to avoid/not develop the standard; the practice is growing and the only way to avoid greenwashing is by providing standardized methodologies for calculating avoided emissions."

GHG Protocol is considering potential next steps based on these results. Thank you to all stakeholders that participated in this survey.

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List of Responding Organizations (listed as received)

- 21st Century Frontiers
- 3M
- 3M EHS Operations - Environmental Laboratory
- AB SKF
- Agrion
- AkzoNobel
- Alcoa Inc.
- AMBIENTAL COMPANY LTDA
- Amcor
- American Honda Motor Co, Inc., Environmental Business Development Office
- Anacapa Consulting Services Inc.
- Anda Brasil
- ArcelorMittal R&D
- Artequim.com
- ARTtraction
- Asahi Glass Co., Ltd.
- ASAHI KASEI CORPORATION
- AstraZeneca plc
- Atlas Copco Compressors Canada
- Attero
- BAM Construct UK Ltd
- BASF SE
- Baumgarten Gráfica Ltda
- Baxter International Inc.
- Bergmark Sustainability AB
- Best Buy
- Bewley's Ltd
- Blonk Consultants
- Bruntwood
- BSI Brasil Sistemas de Gestão Ltda
- BSI Taiwan
- BT
- Buenos Aires Unversitity Agronomy College
- Canadian tire
- Capgemini
- Carbon Matters BV
- Carbon Project Solutions
- Carbon Trust
- Carbon-Expert
- Carrbonearth Ltd
- Caterpillar Inc.
- CECODES (BCSD Colombia)
- CEMDES (BCSD-ECUADOR)
- Chamber of Commerce Antwerp
- Christian-Albrechts Universität zu Kiel
- Ciments Calcia
- City of Austin: Austin Convention Center Department
- Cleargreen Advisors
- Climate Change and Sustainable Development Management Office / Municipal Environment Secretariat (SMAC)
- Climate Focus
- ClimatePartner
- CMG Sustainability
- Comune di Bologna
- Covanta Energy
- Cozeta Energy Service Corp.
- Delphi Automotive Corporation
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
- Deutsche Post DHL
- DFGE - Institute for Energy - Ecology - Economy
- DIMEXON DIAMONDS LIMITED
- DQS Holding GmbH
- DSM NV
- DTZ
- Due Mondi Ecotec Sarl
- DuPont
- DuPont Industrial Biosciences
- EARTH University
- Eco-Care Instruments Pvt Ltd
- Ecodesk
- Ecolab
- Ecometrica
- Econergy
- EcoSol Consulting Inc
- Egemin Automation
- Electra Engineering
- EMBARQ, The Sustainable Transport and Urban Development Program of WRI
- Energetics
- ENFINITY

- Entergy
- En-Venture
- Environmental Resources Management (ERM)
- EOS Climate
- Ernst & Young
- Escuela Colombiana de Ingeniería
- Essentia Community (NHS)
- ESU-services Ltd.
- Ewbank Geo Testing, LLC
- factorco2 integral services sl
- Fazenda Losango
- FCC
- Federal University of Technology - Paraná (UTFPR)
- Foundation myclimate - The Climate Protection Partnership
- Freeport-McMoRan Copper & Gold
- Freshfields
- Future Tech Consulting
- Gaia Consulting Ltd
- GAIL (India) Limited
- Gestarse S.A.
- GHG Management Institute
- GIZ
- Global Development Solutions, LLC
- Global Green USA
- Global Reporting Initiative (GRI)
- Good Company
- Government of Québec
- Greenbase Pty Ltd
- GreenBizCheck
- Groupe La Poste
- H&M Hennes & mauritz
- Hampshire Cosmetics Ltd
- Herman Miller
- Hindalco Industries Limited
- Hospital Israelita Albert Einstein
- HUMAN Network INDIA
- I T Power Consulting Private Limited
- Increment ltd
- Instep
- Institute of Technical Information for Building Materials Industry of China
- Intercity Transit
- Interface, Inc.
- International Post Corporation
- International Stainless Steel Forum
- Intertek
- ITESO University
- IVG - Brasil
- IZES gGmbH
- Japan Chemical Industry Association
- Japan Environmental Management Association for Industry
- JORGE A PLAUCHU
- KADO CONSULTANCY
- Kinpo Electronics, Inc.
- Kogakuin University
- KPMG
- KPMG AZSA Sustainability Co., Ltd.
- KPMG Canada
- KPN
- Kuehne + Nagel
- Kuhn Associates Sustainability Advisors LLC
- Lalan Rubbers (Pvt) Ltd
- Landesbank Baden-Wuerttemberg
- Legal Aid South Africa
- Leighton Asia, India and Offshore
- Lenovo
- Loreus Ltd
- Luis G Huertas, Architect
- maki Consulting
- Manomet
- Matakuxa
- Micro-D Ltd.
- Microsoft
- Miell Consulting
- Minnesota Pollution Control Agency
- MiTAC
- Mizuho Information & Research Institute, Inc.
- MOL Nyrt
- NEC Corporation
- Nestlé
- Net Balance Foundation
- NRDC
- Osaka Gas Co., Ltd.
- Osakagas.co
- Owens Corning
- Paradigm Project Management (Pty) Ltd
- Parque Biológico de Gaia
- Parsons Brinckerhoff
- Pathways to Sustainability
- Paul Wermer Sustainability Consulting
- PE International
- Peab AB
- Peter Caradonna Architecture & Planning
- PGP

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- Philippine Airlines, Inc.
- Pinal Energy
- Post Graduate Research Fellow in Tamilnadu Agricultural University
- Proyectae, Chile
- PT.INDOCEMENT TUNGGAL PRAKARSA,HEIDELBERG CEMENT GROUP,(PALIMANAN PLANT),CIREBON,INDONESIA
- PW Trenchless Construction Inc and The British Columbia Chapter of NASTT
- PwC
- Rabobank
- Rainforest Alliance
- Regional Municipality of York
- Respect Climate
- Rider Levett Bucknall
- Royal Dutch Shell plc
- Ryder System
- SABIC
- SAGE/COPPE/UFRJ
- Saint Joseph University (Beirut, Lebanon)
- Sama s.a minerações associadas
- Sappi Fine Paper North America
- Scholle Packaging
- SCM Services Pty Ltd
- Seagate Technology
- Sectes/Bioerg
- Self-employed consultant
- Seyoum Berhe & Co. Chartered Accountants and Auditors
- SGS India
- Shanks Nederland BV
- Siemens AG
- SKF Group
- SOLTUB Ltd.
- SP Management Consultants
- Spirit Renewed Energy,LLC
- Steel Recycling Institute, a business unit of the American Iron and Steel Institute
- SUEZ ENVIRONNEMENT
- Sustainability Context Group
- Sustainable Business Partnership Ltd
- Talking2Trees LLC
- Tamilnadu Newsprint and Papers Ltd.
- Telekom Austria Group
- Temple Group
- Terrafirma Business Solutions P/L
- TerraSystemics
- Tetra Pak
- The Carbon Accounting Company
- The CARIBSAVE Partnership
- The Climate Registry
- The Dow Chemical Company
- The Energy and Resources Institute
- The Fred Hollows Foundation
- The FReMCo Group
- The Japan Gas Association
- ThyssenKrupp AG
- TOMRA Systems ASA
- Toray Industries, Inc.
- Tricorona Climate Partner AB
- Trucost
- TRUSTED FOOTPRINT
- TU Berlin
- UCLA Anderson School of Management
- Umicore
- Umweltbundesamt
- Universidad de Costa Rica
- University of San Diego
- UPS
- Urban Earth
- USAID - Ministerio Comercio Industria y Turismo
- VALOR CONSULTANT
- Verco
- Votorantim
- Wetlands International
- Weyerhaeuser
- Whirlpool Home Appliances
- Wipro Ltd
- World Resources Institute
- World Steel Association
- WRAP
- WSP
- WWF
- WWF International
- WWF Japan
- WWF Schweiz
- Zimmer Inc.