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The Greenhouse Gas Protocol

Scope 3 Accounting and Reporting Standard

Comment Template

We are providing this template to streamline public comment submissions. To use this template, please follow the instructions below:

- This Scope 3 draft is open for stakeholder comment from November 11, 2009 through December 21, 2009.
- To provide written comments, please use the comment template provided, instead of sending comments in a separate file or e-mail, in order to streamline the comment process.
- When using the comment template, please organize comments by chapter/section and reference page numbers and line numbers.
- If you have questions during the public comment process, please email Holly Lahd at hlahd@wri.org.
- Submit comments as an attached MS Word file by email to Holly Lahd at hlahd@wri.org no later than **Monday, December 21st, 2009**. We appreciate any effort to submit written comments before the deadline.

Feedback from (name) Jay M. Dietrich

Organization: IBM

Chapter/Section	Comments
Comment on Overall Scope	IBM has a long history of commitment for corporate citizenship, environmental protection and support for transparency in reporting. Our results demonstrate that. The current approach of the Scope 3 Standard is misguided. We believe it is important for companies to determine their scope 1 and 2 greenhouse gas (GHG) emissions. These emissions are directly associated with a company's operations and can be determined with reliability and consistency. Tracking them reveals opportunities to improve operational performance in a way that's good for both business and the environment and can therefore be sustained. Further, we support public disclosure of this information. As part of our objective to work with environmentally responsible suppliers, IBM has encouraged its key suppliers to gain that understanding and to disclose their inventories through the CDP Supply Chain program and the Electronic Industry Citizenship Coalition's GHG emissions disclosure effort.

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IBM continues to have serious reservations with regard to the guidelines proposed in the draft Scope 3 Accounting and Reporting Standard. As we have consistently expressed in our comments and discussions in the working group, we believe that the guideline in its present form is unworkable and provides data which is at best meaningless. It makes unreasonable assumptions about the availability of primary and secondary data; presumption on the need for and approach to allocating emissions across operations, business models, and multi-layer supply chains; and the capacity of companies to be able to gather, process, and report the data and do so in a meaningful and cost effective manner. Ultimately, real emissions reductions are made by companies that apply resource to undertake the necessary reduction actions which are informed by accurate energy use and GHG emissions inventories. Developing a scope 3 inventory that encompasses the supply chain does not generate reliable data to inform a company on emissions reductions that they can make, there is a limited direct impact a company can have on suppliers who have many customers, and much of the information on process and material options can be determined either by looking at a suppliers overall scope 1 and 2 emissions inventory or through a company's internal product development processes. At IBM, we have long recognized our responsibility to continually improve the efficiency of our operations and our products and have undertaken actions over a sustained period of time to achieve real energy use and GHG emissions reductions, and design and supply products and services that enable our clients to achieve reductions in their operations.   Consistent with the stated objective of this effort -- to drive reductions in GHG emissions -- the focus of a scope 3 emissions guidance should be to drive each company in the value chain to determine its own scope 1 and 2 GHG emissions. As stated earlier, these emissions are directly associated with a company's operations and can be determined with reliability and consistency, and as a consequence can guide the company act to improve operational performance in a way that's good for both business and the environment and can therefore be sustained.

- I'm moving this from the final cell because I think this statement is important for you to understand the nature of the comments provided.

  Having stated our reservations with the overall direction and requirements of this draft standard, we offer further specific comments with regard to the current language of the draft standard below.

We believe this guideline should be developed in a sequential fashion with the first issue being a more straight forward approach that requires companies to request their suppliers to disclose their scope 1 and 2 emissions, and request their suppliers to do the same with subsequent suppliers. We need to crawl before we walk or run. The Electronic Industry Citizenship Coalition (EICC) supply chain work for the 2008 reporting year had approximately 25% of the queried suppliers out of a universe of approximately 280 suppliers who are able to provide their "approved" or usable scope 1 and 2 emissions inventories. For the CDP Supply Chain program, 52% of the suppliers submitted a final document, but based on last year's responses only a portion of those submissions will provide a verified scope 1 and 2 emissions inventory. The point is, there is currently limited capability or enthusiasm for performing or disclosing a company's scope 1 and 2 emissions inventory. The scope 3 emissions accounting protocols, as currently proposed, are hopelessly complex and will only serve to deter companies from attempting to undertake energy use and emissions inventories. Given the lack of relevance and utility of the scope 3 data to a business and the level of resource required to

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	generate the data, there are very few, if any companies, that can afford to implement these guidelines. Companies should not be expending the level of resource we expect to be required to complete a scope 3 inventory in accordance with the guidance; the resources should be assigned to innovating to reduce energy use and GHG emissions from their operations or improving the energy or material efficiency of their products., Similarly, despite the beliefs of some group members, a scope 3 emissions inventory generated based on product data is essentially meaningless. For example, the PAS 2050 specification requires that only 10% of the data be primary. The rest can come from databases and secondary data. For any company that is buying components for their products, in particular, complex products with hundreds of components, you are faced with a daunting task to require companies in your supply chain to provide you the component specific data or to provide it yourself. We believe the most logical initial step for the guidance is to require companies to determine their energy use and scope 1 and 2 GHG emissions inventories. With the information gains from extending the applicability of the tested and proven scope 1 and 2 GHG emissions guidance across the first tier suppliers of a company, it will be possible to assess the utility, quality and feasibility for generating emissions inventory from suppliers., With this data in hand, it might then make sense to reopen the guidance and perform a round of improvements / additional practices informed by the experiences of companies and stakeholders with this first stage.
The outline and overall structure of the document	•
Part 1	
1. Introduction	• Page 6, Lines 31 to 35: While it is true that Corporate Leaders are adept at calculating and disclosing their emissions, the vast majority of companies are still working on establishing internal GHG accounting systems for their scope 1 and 2 emissions. For the 2007 reporting year, only 15% of 120 suppliers that we surveyed, representing more than 50% of our supplier spend, had completed a GHG inventory and could report their scope 1 and 2 emissions inventory. As was discussed at the Washington stakeholder meeting, it is important for the standard to recognize the current ability of most company to generate their energy use and GHG emissions inventories. Continuing to insist that an overly complex protocol as being contemplated here is not implementable in the face of this reality, will discourage the use of the standard, and likely reduce the likelihood that companies will move forward to inventory their emissions. • Page 7, Lines 10 and 11: Should be rewritten to read: The new GHG Protocol standards 10 provide standardized methods to inventory the emissions of entities in corporate value chains, offering methodologies to estimate the potential impacts of emissions generated by entities in the upstream and downstream portions of a company's value chain. ***Even this is a gross overstatement of what a scope 3 inventory can provide.*** Page 7, Lines 12 to 14: Rewrite to state: By encouraging their suppliers to measure their energy use and inventory GHG emissions, businesses and policy makers can identify opportunities to reduce emissions in the value chain. This needs to be refocused to make it clear that only by getting all companies to complete a scope 1 and 2 inventory, can the data needed to drive action be collected. If a company generates a scope 3 inventory based on questionable assumptions and data, the results will not provide the value that will be provided by each company being required to inventory their scope 1 and 2 emissions first hand and take action to reduce them. • Page 7 Line 19 to 21: We disagree that corporate accounting is driving towards estimating downstream emissions. This continues to be a foolish

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endeavor, as the real issue is the energy efficiency and effectiveness of the product and its metric of work performed per unit of energy consumed. For example, trying to measure emissions of electricity using products does not provide meaningful or representative data, as the emissions are dependent on the generating sources in a specific grid area. Assessing the energy use of a product based on each unit of work performed offers a view at the places where improvements can be made that will in turn reduce GHG emissions. That analysis does not depend on the calculation of the product use emissions inventory.

- Page 7, Line 26: We do not agree there is increased public reporting of scope 3 emissions. There is an increased request for public reporting, but the number of companies actually attempting to quantify scope 3 emissions is very limited because of the complexity of and cost associated with the effort. A 100% increase on a base of 1 is a big increase in relative terms, but an insignificant increase in absolute terms. In addition, one must consider the quality and utility of the scope 3 emissions that are being attempted to be quantified. No one should be provided information that is not credible or defensible.

- Page 7 Line 27: Again, what is the basis for this statement? We are not seeing an increase in scope 3 requests – we are seeing an increase in requests on our scope 1 and 2 inventories. This statement is inaccurate. Even if there were increase in requests, in light of the inherent complexity and our lack of ability to generate meaningful scope 3 data as contemplated by this guidance, the appropriate action to take would be to educate the requester as opposed to providing a number that is unreliable and meaningless.

- Section 1.2 needs to be developed in accordance with the comments that we have made above. There may be business value in certain instances, but it is limited and likely to be overstated. Our view is that any effort beyond requiring our tier 1 suppliers to disclose their scope 1 and 2 emissions and asking them to require their Tier 1 suppliers (our Tier 2 suppliers) to disclose has limited or no business value, and only results in the generation of meaningless numbers.

- Page 8 Lines 42 to 44: How do you get your supply chain to report to a specific scope 1 and 2 methodology (financial control vs. ownership)? I believe this statement needs to be more general recognizing the difficulty in managing suppliers even at Tier 1, not to mention deeper Tiers. There are risks of the differences in accounting approach, but given all the other uncertainties associated with this guidance, the minor differences are not likely to be material.

- Section 1.6; Line 13 to 15: Remove this sentence. It is not true in most cases and creates a very inaccurate impression of the role of the product standard.

- Section 1.11 Boundary Requirements Line 9,10. Use Phase or Downstream emissions MUST not be required. There is no basis for any value to these estimates, particularly in the case of devices that use electricity as their energy source. Downstream emissions need the designation of "should" in the standard. We've provided extensive comments on this subject in the Part 2 category comments.

- Section 1.11 Boundary Requirements. Line 11 The scope 1 and 2 reporting requirements should be the first bullet.

- Section 1.11 Boundary Requirements Line 7,8: The largest scope 3 sources bullet needs to be rewritten to better reflect the information that shall and should be collected.

- Lines 25 to 29 page 10 Reporting Requirements: These requirements must be made optional. To try to get and manage the individual tons of the six gases in addition to the CO2e is difficult which will be further confused by tracking each emission by each company. As we've discussed in previous comments to the

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		working group is that these requirements necessitate collecting over 6 gases * 15 categories * number of suppliers data points. Putting this in context of data collection, manipulation, and data quality management it is an impossible task which will generate a completely meaningless number. The appropriate guidance for this first standard is that companies shall request their key, first tier suppliers to disclose their scope 1 and 2 emissions with a "should" for more detailed information. Again, the focus here is to get suppliers to determine and disclose their scope 1 and 2 emissions and drive the same requests for their suppliers.
		• Lines 36 and 37 are redundant to Lines 28 and 29. Also, 36 and 37 should only be reported for the percent of the overall inventory not by GHG gas and category.
2.	Accounting & Reporting Principles	• Page 12 Lines 9 to 26: It will be very difficult to verify any of these criteria and justify exclusions on a scope 3 boundary and reporting based on disclosure from suppliers. Companies must not be expected to provide specific feedback or held accountable for these accounting and reporting principles for individual suppliers. The reason is simple. Companies do not know more about their suppliers' businesses. In addition, how can we be responsible for tracking completeness and exclusions for multiple suppliers for 6 GHG gases for 15 categories? This is unreasonable. The requirement should be to get your Tier 1 suppliers to determine and disclose their GHG emissions inventory to the GHG guidelines and request the same of their suppliers.
3.	Business Goals & Inventory Design	• Page 13, lines 13 and 14. The concept of driving and measuring absolute reductions in a supply chain is not logical. Based on our first hand experience, managing the IBM baseline is a major task requiring days of effort to track changes in the property inventory and business activities. To translate this to hundreds of suppliers is impossible unless you ask each supplier to establish and report their own goal. While that is, perhaps, a worthwhile goal we are back to requiring the supplier to inventory and disclose their GHG emissions.
• Page 13, lines 20 to 22: As crafted, this standard will not provide any reliable and meaningful data to policy makers, it will only serve to obfuscate the debate. As proposed this standard would result in the reporting of a GHG emissions inventory of many times the actual scope 1 direct emissions because of all the double counting up and down the supply chain as well as gross estimates of the dubious allocation of emissions to products, customers, or users. The numbers generated by this standard will have limited or no basis in reality and no value to decision makers. In fact, worse than no value, they provide misinformation to users.
4.	Mapping the Value Chain	• Page 14, lines 9 to 17: This section offers no sense of depth into the supply chain. For this first pass, we believe that the guideline should focus on Tier 1 suppliers. There is so much to do with the Tier 1 suppliers in the supply chain and that is where companies have some leverage with their suppliers. We believe that the guideline should explicitly state that the recommended boundary is the Tier 1 suppliers. At some point in the future, informed by our learning and verification of utility and the value of scope 3 emissions data, the boundary could be adjusted. It is not reasonable or prudent to leave it open ended at this time.
• Page 14, Lines 36, 37: We do not agree that employee commuting emissions should be included. There is no reliable way to collect this data, employee housing locations are an employee choice in most countries, chosen methods of transportation are decided by the employee, etc. The only way to calculate this would to be get a per person commuting emissions number from some study and make an estimate on the number of employees in that country or region. In that case what value-add is there to require each company to repeat the same? That is not a logical approach.

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	- Page 15, Figure 4.2: The statement of upstream emissions from cradle to grave should be removed from this figure. It should stay at Tier 1 suppliers. - Page 15, Figure 4.2: We are troubled by the requirement to report emissions associated with product disposal. How do you calculate this? What is your base year? How do you account for products that are reused or resold? Again, there are two many permutations in this equation to drive a meaningful estimate of these emissions. For example, if you reuse a product, do you get credit for the emissions avoided by not having to build a new product? How do account for that? Again, there is no reasonable way to assess or estimate this quantity. - Page 16: We are very concerned about the category separation required by scope 3 because of the management problems. How do we determine completeness, how do we check accuracy, how do we identify what is excluded? Collecting data by category should be an option, but it should not be a requirement. Again, trying to manage this level of data for over hundreds of suppliers is completely unreasonable, even assuming that we have made a relevancy determination. The effort required to collect and manage the data is insurmountable. No one is close to doing this today. In addition, even if it were possible to collect the data, it remains very unclear what are the business justifications to expend the resources. Given a choice, we would expense the resource to actually reduce emissions, as opposed to collecting information with limited or no utility. - Table 4.1: The inclusion of emissions from the capital equipment suppliers is not reasonable. First off, how far does this get chased? Are you expecting a CO2 inventory on all the materials that went into building a production facility and the equipment that goes into it? Do I account for that in the year I purchased the equipment or built the facility? How do I allocate that? I think this category needs to be removed – it's not meaningful. - Category 2 should more clearly state that this represents 2 tiers and beyond. There is also much more complexity in working on data in tier 2 and beyond. As we have discussed previously, data from suppliers beyond Tier 1 should not be a requirement for the standard. It is not feasible or achievable. - Table 4.1: Employee commuting should be removed. It is not relevant to the scope 3 emissions inventory because employee commuting is not controlled by the company. There are discussions on the commuter item in other parts of this response. At most, it should be an optional category.
5. Setting the Boundary	-
5.1 Prioritizing Relevant Emissions	- Page 18, line 8 & 9: The assumption that companies will want to set reduction targets for their scope 3 suppliers is presumptuous. We do not control our suppliers operations, nor do we have the required business knowledge, and are often a very small portion of their business. In addition, trying to set a baseline in a dynamic supply chain environment would be very difficult. But perhaps more fundamentally we do not know our suppliers business to be setting goals for them. We would not want someone else to dictate a goal to us when they do not possess the relevant knowledge of our business! You should remove the statement "and reduction efforts". - Page 18, line 11: On page 10, line 13 Section 1.11, the Boundary Requirements state that a company should report all relevant emissions. On page 18, line 13: you state a company shall report all relevant emissions. This is an inconsistency and in our view this page 18 reference should say "should". Given the tests for relevancy that are provided later in the guidance, a "shall" requirement becomes impossible. This statement also needs to be given context to the depth into the supply chain. It should clearly state that a company shall request Tier 1 suppliers to disclose their scope 1 and scope 2

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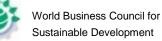|	
	• emissions, with deeper tier evaluation being optional. • Page 18, line 15: Should be reworded to say "appropriately reflects the emissions of the company's supply chain". If you say that the scope 3 guidelines should involve the scope 1 and 2 emissions of the Tier 1 supplier, then the statement should read "appropriately reflect the total scope 1 and 2 emissions of the company's supply chain." • Page 18, line 18 and 19: We disagreed with the view that stakeholder and user requirements must necessarily be considered relevant. There is so much misinformation in the current discussion on this topic, particularly regarding the serious gap between theory and nice to have of an academic study and the practicality of what data and information is available and can be managed by companies. Stakeholder and user requirements are often naïve, unreasonable or impossible. The extensive dialogue that has occurred in the development of the guideline is reflective of this tension. We are spending a lot of time explaining to stakeholders and users why we can't provide this information and why if we did it would be meaningless. Companies must have the ability and should be free to challenge and inform groups that are making unreasonable requirements or requests. • Page 18, line 30-32: See comments for Page 18 lines 8 & 9
5.2 Prioritizing Relevant Emissions Based on Size	• This section should allow an alternate where you can query your key or relevant suppliers for their scope 1 and 2 emissions. Because you have some basic understanding of the nature of a supplier's business, this will let you query suppliers to get an idea of "how big is the breadbox". This will give you two relevant pieces of data. How many companies in your supply chain have actually done an inventory and where they have, what is their emissions inventory and at what level do they have data available. This will then let you do further prioritizing and determine if you need to get information from deeper in the supply chain (such as for a microchip design house that outsources the manufacturing process to a foundry). To require prioritizing without any information is not reasonable. Essentially, your first prioritization is based on the service or product provided and the size of your business with that supplier. • Page 18, lines 43 and 44: Without some initial data, you have no way of being able to make this assessment. This needs to be a second, optional step if a company feels that there is value in getting more information. You should be able to opt out to an enterprise level request. • Page 18 Lines 49 to page 19 line 8. Again, how can the primary company be responsible for assessing relevance for multiple suppliers for 6 GHG gases for 15 categories? This is unreasonable. Coupled with the fact that what is relevant for one supplier may not be relevant for another supplier based on their business model. Some companies may outsource logistics, others may have an in-house fleet. You are expecting a knowledge and understanding of individual suppliers that a company will not have and really doesn't need to know. • Page 19, lines 10 to 13: Use Phase or Downstream emissions MUST not be required. There is no basis for any value to these estimates, particularly in the case of devices that use electricity as their energy source. Downstream emissions need the designation of "should" in the standard. We have provided detailed comments on this in the Part 2 comments on downstream emissions.
5.3 Prioritizing Relevant Emissions Based on Other	• Page 19, line 28: Ability to influence should not be a criterion. It is our belief that we have a limited ability to influence our tier 1 suppliers directly. We can do it as an industry group, which is why we have worked through the EICC on GHG emissions activities in the Electronics supply chain. • Page 19, lines 32 and 33: We disagreed with the view that stakeholder and user requirements must necessarily be considered relevant. See discussion in

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Criteria	section 5.1. This item should be removed from this list.
	• Page 19, lines 34 and 35: How are we supposed to know what is typical for our industry and what our suppliers are doing? I will agree that there is some knowledge in this area, but without doing the assessment of key suppliers that we discuss in 5.1, there is no good way to make this assessment. There needs to be a logical order to how you collect and analyze the data.
	• See the early comments on the relevancy of these relevancy requirements.
	• Section 5.3.2 Table 5.2: The relationship of this table to determining relevant scope 3 categories for emissions assessment is unclear. Product technology is important to the viability of a company but is poor criteria for determining relevance of emissions. Litigation and reputation will be affected by a company's overall activities. This section needs to be reconsidered or the scope 3 assessment should have a required risk assessment section.
	• Section 5.3.3: As we discussed previously, stakeholder requests should not be a test of relevancy. Many stakeholders' requests are not reasonable or are based on unreasonable expectations.
	• Section 5.3.4 This section gets at the dilemma of the scope 3 inventory. Different companies use different outsourcing models with different operations. Trying to normalize the data to provide a common inventory metric is very problematic. Companies may outsource to become more efficient. For example, IBM offers data center services to its clients who utilize virtualization technologies and can significantly reduce a company's hardware needs and energy use to run its data center operations by consolidating many applications from many servers to one server. In most cases today, the data center set-up is not configured to derive a separate energy calculation for the clients operations. That may change with time, but Cloud computing will confound this even more. The point is that it will be very difficult to create these numbers, let alone consistently and routinely, and require a significant additional layer of measurement that is not generally available today.
6. Collecting Data	• As discussed above, it will be necessary to allow companies for the first year or two to query their primary suppliers to understand their energy use and emissions inventory and their ability to provide and disclose data. Once that data is in hand, then you can better assess the logical next step.
6.1. Prioritizing Activities	• This section is almost redundant to section 5. The prioritization should be done and completed per the requirements of that section. The next step is item 2, assessing data sources, which is probably where this section should start.
6.2. Assessing Data Sources	• Once you determine the approach that you intend to use to estimate the scope 3 emissions, then you need to go to the prioritized suppliers to see what information they have. There is an implicit assumption in this discussion that you know what data your suppliers have available. That is not true. You need to create a two step, multi-year activity. If you are just starting to collect data, you need to determine what data you wish to collect and then ask your prioritized suppliers for the data. You need to combine the work from sections 4 and 5 to determine what suppliers you want to query and what data you want to ask them for. Then you have to see what you get back and evaluate your next steps. That may include resetting your boundaries, requesting different or more data and working with suppliers to have them develop or provide the data. This is going to be an iterative process that is likely to take several years. This needs to be reflected in the guidance. You almost need to break this into two sub sections: "Just Getting Started" and "Supplier Data In Hand".
	• Table 6.2: There is an explicit assumption in these tables that a manufacturer is going to be expected to take energy use data from a supplier and then calculate the CO_2 emissions. This is not going to happen. There is no supplier that has the resources to work through the emissions calculations for

all their suppliers. This table needs to be modified to offer more reasonable examples, something like I have a supplier in this particular category for which I have good data on its scope 1 and scope 2 GHG inventory. I am going to extrapolate its inventory to my other two suppliers in that same category who cannot provide data.

- Page 24, Lines 8 to 17. This hierarchy is incorrect in some cases. First, you need to determine if you are going to estimate your scope 3 emissions by product types or at an enterprise level. So that is the first decision that needs to be made. Once you make that decision, then you need to decide what data you are going to ask for. The prioritization in lines 11 to 15 is OK if you are calculating based on products, but it is not if you are looking at enterprise level emissions.

- If you are going to look at Tier 1 Scope 1 and 2 emissions, you then need to look at it from the enterprise level first. Factory level is going to be very difficult. In some industries, one customer may be served by one factory. But in other industries, suppliers move production around based on capacity, schedule, quality issues and other considerations. You may have 2 or 3 facilities out of 10 owned by the supplier qualified to do one product and the supplier moves production around based on availability etc. You may have 1 of those facilities and 2 different facilities qualified to do another product and so on. Trying to manage at a facility level is unreasonable and you will be unable to get or manage the data in any reasonable way. A better hierarchy in this case is to get enterprise level first and then consider more granular data if it is reasonable based on your sourcing with that supplier. But many suppliers are not going to be willing to provide data by facility because of the effort required to reveal that data.

- Page 24, lines 19 and 20: These two lines add more complexity to the data presentation. So now we have six gases, 15 categories explained by 4 categories of data quality for each supplier. And then if you break it down by facility, you have even more permutations. This requirement should be a should, not a shall. And this topic should be covered in the assurance section, not in the collecting data section.

- Box 6.1 makes good sense, and is somewhat contrary to the discussion that comes before it. This section needs to be improved and you should build out the concept of each company in the supply chain requiring their supplies to inventory and disclose there scope 1 and 2 GHG emissions.

- Page 25, table 6.3 category 2: Without having a credible and consistent way to allocate emissions down the supply chain, category 2 becomes meaningless. There are so many permutations of the data that you will not be able to make any meaningful estimate of the emissions associated with your purchases. Also, category 2 needs to be set as Tier 2 and beyond (see our part 2 comments). I will reiterate here that our recommendation that data for Tier 2 suppliers and beyond needs to be optional (may).

- Table 6.3, Category 3: Including the T&D losses in the scope 2 data becomes problematic. This data is not collected in a scope 1 and 2 inventory and it is assumed that it is carried by the utility companies. We do not see the value in querying electricity suppliers to get the T&D losses. The only way this is going to be done is to put a T&D factor into the scope 1 and 2 guidance and require it there.

- Table 6.3 category 2: Similarly, we are not going back to our electricity suppliers to get the emissions associated with the fuel generation for their activities. As an example, we are collecting energy use data from 650 facilities using country level factors for tons of CO2/MWH. We cannot reasonably go get the fuel data.

- Table 6.3, downstream categories: For downstream emissions, how are you

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	going to reconcile the year in which they are realized. Disposal of a product may not occur for years (hopefully) so how do create a timeframe for these. For product use, is it expected annual use? And how do you pick a standard configuration. We have done some work on estimating use phase energy use for our products in the use phase for some internal benchmarking work. There are so many models and configurations of each machine type that you have to do a high degree of estimation to just assume the power use. • We repeat our concern that commuter emissions should not be required as part of this standard, as companies do not control where employees chose to live. We provide programs to offer employees a more efficient commute, but it is their choice. Additionally, there is no effective way to estimate the transit choices employees are making. Doing a survey to estimate commuting choice is not a valuable use of resources and will not provide any truly meaningful data. • Page 26, table 6.4: For primary data, the receiving companies are not going to be in a strong position to assess data quality. We can look at the general results of the data, compare it to other data from similar types of companies, and identify clear issues with the data. But ultimately, the integrity of the data is going to have to be verified by the originator of the data through 3rd party verification or by self certification. We do not have the resources to audit or assess specific suppliers and they do not have the resources to host audits from each of their customers. There has to be a way to "certify once", if we want to verify the quality of the data.
6.3. Collecting data	• The data collection flow chart is OK, but it needs a proviso that says that it is up to each individual company to choose the data types that they want to use. The first choice is scope 1 and 2 inventory by supplier vs. product "embedded" emissions or LCA approach. This needs to be clearly declared, as it will not necessarily create an "apples to apples" scope 3 inventory. Then the next step is to determine the primary data available and the secondary needed. • Page 29 to 30, Extrapolation discussion: Extrapolation will only provide a better estimate of data gaps if the extrapolation is constructed on solid assumptions and reasonably solid data from which the extrapolation is being derived. • Section 6.4: Evaluating Data Sources. This section needs to be constructed with a clear understanding of the limited leverage and visibility that a requesting company has to the data provided by their suppliers. A manufacturer is going to have limited visibility to the suppliers data sources and collection and integration processes, In some cases, companies will not want to provide highly granularized data due to the burden of providing that data to multiple customers and the uncertain of that data with regards to where products are actually built or sourced. Companies may have multiple facilities with different GHG profiles due to different grid or energy sources making the same product.
7. Allocating Emissions	• Before making scope 3 emissions allocation even an optional task in this guidance, WRI, with participation of companies, needs to assess if a straight forward, implementable and consistent methodology is even feasible for determining a meaningful and useful emissions allocations through a supply chain. A careful evaluation of allocation approaches reveals that all but a very simple approach creates an extraordinary amount of work to undertake the allocation through the supply chain and a high degree of uncertainty in the final number. Without completion of this assessment of allocation options, the implementation of this standard will provide truly meaningless data. To be very candid our real world experience and with candor, it is unclear how this can be done, but without it the standard begins to break down. Again, we believe the best approach is to have the companies in the supply chain

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inventory and disclose their total scope 1 and 2 energy use and GHG emissions inventory, without any attempt at allocation. This in turn, provides a reasonable means for companies to assess their energy use and GHG emissions and determine where they can drive improvements.

- Page 31, line 28 and 29: This statement should be removed. The intent of scope 3 is not to do product level analysis. For our purposes, the scope should not have a product based focus.
- Page 31, line 31 to 38: This hierarchy is incorrect in some cases. First, you need to determine if you are going to estimate your scope 3 emissions by product types or at an enterprise level. So that is the first decision that needs to be made. Once you make that decision, then you need to decide what data you are going to ask for. The prioritization in lines 11 to 15 is OK if you are calculating based on products, but it is not if you are looking at enterprise level emissions.
- If you are going to look at Tier 1 Scope 1 and 2 emissions, you then need to look at it from the enterprise level first. Factory level is going to be very difficult. In some industries, one customer is served by one factory. But in other industries, suppliers move production around based on capacity, schedule, quality issues and other considerations. You may have 2 or 3 facilities out of 10 owned by the supplier qualified to do one product and the supplier moves production around based on availability etc. You may have 1 of those facilities and 2 different facilities qualified to do another product and so on. Trying to manage at a facility level is unreasonable and you will be unable to get or manage the data in any reasonable way. So a better hierarchy in this case is to get enterprise level first and then consider more granular data if it is a compelling reason for the information based on your individual sourcing arrangement with that supplier. But many suppliers are not going to be willing to provide data by facility level because of the effort required to reveal that data.
- Page 31: Line 40 to 43: This paragraph needs to be removed. This set of statements is unreasonable and only necessary if you are trying to do a product level assessment. There are two issues here. (1) Many companies will not provide the granularity detailed in these lines. It is not practical, resources for implementing this cannot be justified, and it provides way too much information about the details of a company's operations. Secondly, there is no effective way for a manufacturer to process this data for tens or hundreds of suppliers to produce anything that is remotely meaningful. It becomes a giant software program to pull in all this data, to a large extent you are going to end up processing a voluminous amount of highly uncertain data, manipulating it to generate more uncertainty, and then creating a highly uncertain number. You end up misusing or wasting a lot of resources for no demonstrable benefit. Also, any given set of suppliers will use a multitude of data management systems. Companies will use tools designed to mesh with their corporate systems to manage and report information, and these will typically not be based on an open source, publicly accessible data base, further exacerbating the difficulty of managing the data. The requirement should be to get the enterprise level data, at a minimum, and go for a greater level of granularity only where the requesting company has a clear plan and purpose for using that data and the data is suitable for that purpose.
- The allocation methodologies need to be thought out before any requirements are imposed --- starting with what do we need this gross, so far dubious estimation for? What utility does it have? What real environmental and business problem will this help to solve? What will this data be used by the requesters and end users? What message does this send to the general public? Does it confuse them or help them? At a minimum and if the task is

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	justified, there should be other options here that are not directly product or component based. As discussed above at the beginning of this section, If there were a justified desire to pursue allocation it is imperative that WRI bring together a small group of affected companies to figure this out. • Table 7.3 page 34: for categories 1 and 2, I don't understand why supplier knowledge is to be avoided. Each supplier (i.e., each company in the supply chain) has the best view of its own energy use and GHG emissions. That statement should be removed.
12. Assurance	• Page 36, lines 19 and 20: The assurance process for the scope 3 emissions inventory is very different from that for the scope 1 and 2 emissions inventory. This is recognized as you go through the section, but the language does not make any allowances for these differences. There will be some overlap on those categories which depend on internally generated data such as business travel, its own logistics activities and commuting. However, the approach for purchased good and services, waste generated in operations and disposal of products will require different assurance approaches. For example, suppliers of purchased goods and services are going to need to self-certify or perform and report a verification – companies should not expect to have to do the verifications themselves as it would be highly inefficient and cost prohibitive for all involved companies. • Page 36-40: This section seems to be way too definitive regarding the extent and nature of the assurance audit. Early in the process, there may be very little data available against which to perform a data assurance process. The section needs to address the fact that the development of a scope 3 inventory is likely to be a journey and in the early stages there will not be a reason to seek 3rd party assurance, either internal or external. The responsibility of the verification must rest with the entity that supplies the data – not with the entity that receives the data. • Page 45: While I realize the Tier 1 supplier visits is a should (optional), I think it should be a may. There need to be alternatives to managing this through on-site supplier verifications per my earlier discussion. It is unreasonable to expect a company to have to try to verify emissions inventories from tens or hundreds of suppliers and for a company to have to "host" tens or hundreds of customers. This program is not sustainable or doable. • General Comment: The assurance requirements are way too strict and unreasonable. Doing a scope 3 inventory is not like doing an accounting or material audit. You have a lot of uncertain data embedded in the inventories and there is no cost-effective, realistic way to do verification on thousands of data points. The detailed description provided here will scare off a lot companies from doing any scope 3 work because the level of uncertainty embedded in the data makes any kind of assurance almost impossible. It also suggests a huge outlay of resources by a company that cannot be justified by the expected results and benefits of the data. While the upfront section talks about a company needing to determine how the data will be used and the appropriate level of assurance for that purpose, this section does not read like you have a lot of options.
13. Reporting and Communication	• Page 47 line 13. You should state here that the reporting period may be more than annual for some or all categories. • Page 47 lines 11 to 30: This matrix is undoable for a large company. If I have over 100 suppliers, with 6 gases, with 4 layers of data certainty with 15 categories (assuming each supplier uses 5 categories), I have 12,000 data points to manage, many over which I have no control (this is from an assurance standpoint). The expectations are unreasonable. You should be able to get reports in CO2e and roll-up in CO2e, not have to do all these machinations through the data certainty and number of gases – what company

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	that is responsible for its shareholders can justify such resource?
	• Page 47 lines 19-20 and 27-28: these two sets of lines are redundant.
	• Page 47 lines 36-37: Now you add further disaggregation of the data. By what criteria? This reporting process is creating a reporting and data management nightmare with very little, if any, benefit to the stated goal (at the stakeholders meeting in DC) of driving emissions reductions. In fact we would unequivocally state that there are far more direct and effective way to either produce (where involving a company's own activities such as business travel) or influence (where involving a supplier's activities) reduction in emissions than doing what this protocol calls for. There is so much <u>accounting</u> work to do slicing this data 12,000 different ways that it robs available resource required to actually do emissions reduction work. You need to step back, ask the question "What problem are we trying to solve?", and perform an honest assessment of the process that has been created as to whether it provides a reasonable, effective and affordable means to meet the stated goal.
	• Page 48 lines 23: should be 13.2.2
	• Page 48, line 1 You should provide a reporting option of 13.2.1 plus the net scope 1 and 2 emissions for those entities that reported. That is a simple manageable effort which provides a focus on reducing emissions.
	• Page 49, rename uncertainty "level of confidence". This was discussed in the reporting work group at the Washington Stakeholders meeting.
	• Page 48 lines 35 to 56. This section needs to be integrated with the concept of assurance. If I identify that the data has a low level of confidence, then I should not have to do assurance on it – I already know it has limited value. Perhaps I need to provide and action plan to improve the confidence level, but I should not have to do assurance on it. As we noted in the assurance section, we do not believe that the proposed assurance requirements are justified.
	• Page 49: The report page is delightfully simple, but it belies the work that must be done for companies that have large supply chains or multiple missions.

Part 2: Repeating the emissions relevancy testing information in every section seems to me to be unnecessary. Just say evaluate relevance in accordance with section x.x and move on. This section should focus on calculating methodologies.

1. Purchased Goods and Services- Direct (Tier 1) Supplier Emissions	• Page 51 lines 14 to 27: You need to add a bulleted item: Other means of determining relative emissions contributions to the scope 3 emissions based on company knowledge or other factors. The selection process has to be documented.
	• Page 51 lines 8 and 29: the numbering scheme appears to be incorrect.
	• Page 52 lines 7 to 14: This needs to be removed. Per our comments to section 6.2, an entity needs to decide if it's going to calculate its scope 3 emissions based on supplier scope 1 and 2 emissions or product emissions. From there, the company will determine what data sources it needs to pursue. The scope 3 guideline must not state a preference for product data to do the calculations.
	• Page 52 lines 35 to 41: This statement needs to be put in context of setting a base year for a reduction goal, not provided as a general statement. The complexity of trying to set a baseline for scope 3 emissions is immense and not practically doable given the limited control over even tier 1 suppliers and the dynamic nature of the supply chain. A baseline is likely only possible with very simple supply chains where the primary manufacturer can exercise a high degree of control/oversight.
2. Purchased Goods and Services – Cradle-to-Gate Emissions	• This section should be limited to Tier 2 and beyond. Tier 1 is covered in item 1. Otherwise it's redundant.
	• Tier 2 and beyond should not be required. The difficulty in getting this data and allocating is extreme. We need to be able to work with category 1 before we

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get into this kettle of fish.

- Page 54 lines 43 and 44 & Page 44 lines 5 to 10: The protocol has to provide an option to just get some preliminary data to figure out what is where. The first step should be for a company to assess its supplier types and the number of each type, what kind of energy use and emissions they are likely to have based on their business type and model, and then do a survey of a selected number of companies based on that analysis. Essentially, this is an assessment using "secondary" data – knowledge and good engineering judgment. That analysis will give you data on who can provide an emissions inventory and how big that emissions inventory is. From there you can progress to a more detailed analysis of major emissions sources.
- Page 54, Note 26, 27: You are making an assumption on a company's visibility into its supply chain that is not accurate.   Many companies can not effectively look into its 2nd tier and beyond supply chain.
- Page 55: applying the 80% rule to the full supply chain is not reasonable. You do not have visibility that deep into the supply chain. In addition, you have very little leverage to test your suppliers' scope 3 emission inventory, because that is opaque to you. In addition, there is no way for you to test into that depth because you don't have a relationship with those suppliers and the number of suppliers that are in the 2nd tier and beyond of a complex product makes it unreasonable to test it. This ties back into the discussion that was carried on in the assurance section.
- Page 56, section 2.3: once again, this is written with a product focus. That language needs to be pulled out of here. Again, a company needs to declare whether it is creating a scope 3 inventory based on products or facilities. This language needs to reflect that.
- Page 56, lines 31 to 36: You cannot get this deep into the supply chain and get meaningful data.
- Page 57, line 7: Again the reference is to product data. Needs to be broadened to recognize the company's base approach to collecting scope 1 and 2 data from their suppliers – is it based on operational or product data? Then, depending on which approach is used, what is the data hierarchy that will be used.
- Page 55, lines 5-10: This assessment should allow screening based on actual emissions data where available. Focusing specifically on going two deep and beyond in the supply chain, the use of secondary is slightly problematic because it assumes a certain level of knowledge about the products and manufacturing methods in the supply chain. Outsourced operations and purchases are done because the company does not want to make the investment in those technical or service resources. So it is likely that doing assessments based on secondary data 2 or more deep in the supply chain will run into three problems: (1) The company does not have the expertise to assess the relative value of emissions that deep into the supply chain (2) if it does have the expertise, it is going to be dispersed throughout the company and those individual's are not going to have time to allocate to assessing the relative amount and importance of GHG emissions from the supply chain, and (3) the relative values are going to be hard to ascertain because of the relative impacts of a large GHG using process with a small number of parts vs. a small GHG using process with a large number of parts. Which brings us back to the discussion that a company should only be asked to request the scope 1 and 2 emissions from their Tier 1 suppliers and encouraging their Tier 1 suppliers to query their Tier 1 suppliers for the scope 1 and 2 emissions.
- Page 55 lines 12 to 17: The same discussion as above. An emissions based analysis assumes that you can gain sufficient knowledge about the processes or products deeper in your supply chain. This assumption has no basis.

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		• Page 55 line 27; The document speaks quite a bit about the certainty or level of confidence in a particular calculation. An objective set of criteria for uncertainty or level of confidence need to be provided to explain what is required.
		• Page 56 lines 31-36: Here again the discussion for page 55 lines 5 to 10 is relevant.
		• Page 57: Not sure why these tables need to be repeated. They just could be referenced back to the front of the document.
3.	Energy-Related Activities Not Included in scope 2	• Inclusion of the T&D losses from purchased utilities seems unnecessary. It's a cost of doing business, it's embedded in electrical use and it will be reduced when you reduce your energy use. A company can do nothing meaningful, short of installing co-gen or on-site generation at your facility(ies). This just seems like a calculation that's required for the sake of calculation with absolutely no value add to it. It adds an extra hour to the work I have to do to compute my scope 3 emissions, but its busy work with no purpose and no benefit.
4.	Capital Equipment	• Here again, I am not sure what benefit this calculation brings to the scope 3 emissions inventory. First off, it only occurs in the year in which I buy the equipment. So, if I build a large manufacturing facility and outfit it, I'll have this huge increase in scope 3 emissions that goes away the next year – what did I learn and how would I use the data?. I am not going to purchase capital equipment based on its embedded CO2 inventory – I am going to purchase it on function, form and cost, and on its energy efficiency for unit output which is what really matters for my business and for reducing my scope 1 and 2 inventories. A tool that may be more energy efficient operationally may have larger "embedded" footprint than one that is less efficient because it uses more chips and control structures and material to get the better energy use profile. Secondly, there is no reasonable way to calculate or estimate this. I doubt that many, if any, capital equipment makers will produce a carbon footprint for their equipment. Even if they did, based on the known challenges associated in generating reliable scope 3 emissions – not least discussed herein – I'd be hard pressed to believe those numbers, let alone advising my procurement team to rely on that for purchasing decisions. If I use the weight of the tool and multiple it time the emissions for steel production, I miss the emissions of all the value add steps between the steel and the tool. And I have to calculate weights, make estimates, etc. etc. so I end up with a huge amount of uncertainty. And finally, the data does not really provide any meaningful information to change my behavior or reduce my emissions.
		• What's implicitly stated, but not explicitly declared, in this section is that it would include the emissions associated with the material and construction of facilities. As for capital equipment, this is a serious overreaching of the boundary conditions and not a useful calculation.
		• This category should be removed.
5.	Transportation & Distribution (upstream/inbound)	• Inclusion of the warehouse calculation in the distribution network is by inspection not logical. The fuel use to ship the material will far outweigh the energy use at the warehouse. Warehouse considerations should be removed from the calculation methodology.
		• Page 65 line 7: The fuel based methodology might make sense if I made and shipped 20 products a year because they were really big or if I own my own fleet (which then makes it a scope 1 calculation). This should not be the primary recommendation, as most people ship too many individual items to ever try to use the fuel methodology.
		• Page 65 For anybody who is shipping a lot of packages, they need to use a distance/ton/mode emissions factor. There is no other logical way to do it. And even then it gets problematic. Basically, you are going to have to write

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	into your logistics contract a requirement for the supplier to give you a ton mile quantity for everything you shipped with them each year. This means everyone has to modify their shipping system to generate that data. • Page 65 lines 33 and 34: These should be removed. There insignificant next to the transport emissions. • Page 66 lines 4 and 5: This should be removed. A company is not going to track the number of air legs in a package transit nor should they. You can add this to a calculation tool but it should not be in the guidance. • Page 66, lines 7 to 16, Utilizations: Again, too much detail. This factor is either included in the emissions factor for ton miles shipped or it doesn't get included. These requirements should be in a calculation methodology, not in the guidelines. No company is going to do a trip by trip assessment of their emissions.
6. Business Travel	• No comments
7. Waste Generated in Operations	• The outcome of attempting to calculate the methane generated from landfilling wastes is dubious at best. Moreover, the suggested approach has way too much detail and again does not add to materially to the discussion or provide you data that you can act on. The simplest and most logical approach, if you really want to get at the value would be transport and the fully oxidized potential of the wastestreams, for which you could use canned numbers. • This category is probably a nit for most companies.
8. Franchises Not Included in Scope 1 and 2 (Upstream)	• Construction and building material emissions from franchises should not be included.
9. Leased Assets Not Included in Scope 1 and 2 (Upstream)	• No comments
10. Investments Not Included in Scope 1 and 2	• No comments
11. Franchises (Downstream)	• Construction and building material emissions of franchises should not be included.
12. Leased Assets (Downstream)	• This item is similar to the capital equipment item, the comments are the same, and it should be removed as a category.
13. Transportation & Distribution (Downstream/ Outbound)	• See commits for upstream transportation and distribution.
14. Use of Sold Products	• This category should, at most, be optional in any scope 3 discussion. • This category does not add any value to the discussion of emissions impacts. There are several issues: (1) for electricity using products, the use phase emissions will be dependent on the grid emission factor to which the equipment will be hooked. In reality, you should just specify an average global electrical GHG emissions factor a company could use to calculate this to make a consistent comparison. (2) How do you specify an "average use scenario"? Who will decide that? This is naively presumptuous. There are millions of products in the world and each user decides their particular use profile (which will be similar on some products and dissimilar on others). (3) Once you go to the average use scenario, the calculation only represents a volume of products produced. (4) The real issue here is a discussion of how do you make your products efficient for the work delivered per the unit of energy applied. (5)

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	What is the value of taking production numbers and multiplying by two factors to get a "general number". Performing these calculations will not provide any meaningful information to support emissions reductions; this is evaluated through the product development process. All that publishing this data does is confuse the discussion, because it double counts other company's use analysis. • While we recognize that evaluation of energy use over a product life cycle can be useful to identify opportunities to design the product in a way that reduces its use phase energy, you don't need to calculate the use phase emissions of produced products on an ongoing basis to identify those opportunities. This is a "solved" problem.
15. Disposal of Sold Products at the End of Life	• I am concerned about how you calculate end of life disposal GHG emissions. There are a whole host of variables here, specifically for complex products. And in the end, I'm not sure how this information helps you reduce your emissions. • A company has no idea of the timing of disposal of the product. If you assume a life cycle of the product (use phase) do you assume all those products will be disposed in x years? Do you have to go back and get your # of products sold ten years ago to do the calculation for the current year? Do you calculate it for the products you shipped that year. Surely one can "assume" anything and use historical data as a basis. However let's not lose sight of the stated objective of driving emissions reductions. Will this do that? I don't think so.
16. Employee Commuting	• This category should be removed or be optional. Companies have limited control over their employee commuting, though they can encourage it through work at home programs, commuter programs etc. But when you have 400,000 employees around the globe, it's difficult to perform surveys to attempt to discern commuter behavior and apply that to a mixed and diverse population is a large cost with little return. • Suggesting that an annual survey is required is unreasonable.
Glossary	•
Any other general comments or feedback	• As we've commented throughout the development process for this guideline, the guideline needs to either be simplified for the first iteration and then adjusted in 3 or 4 years based on learning in the first iteration or it should be constructed with a hierarchy of options for conforming to the guideline – first, second, third, levels – depending on the relevance activities to a company. This guideline as written and taken literally demands a detailed accounting of a product attribute that does not lend itself to detailed accounting. It's not like RoHS where the requirement is based on the presence or absence of a material, and if present, you can get a value for it in a product (more or less) and then add them together. The boundaries, the inputs, and outputs of a CO2 inventory are a completely different concept and much more complex. To address this complexity you should be able to build a scope 3 inventory based on scope 1 and 2 of tier 1 suppliers with an encouragement for the tier 1 suppliers to query their tier 1 suppliers (the level 1 evaluation) to a full blown, end to end assessment based on reliable scope 1 and scope 2 emissions directly reported by each company (perhaps designated as a level 3). Level 2 would be somewhere in between. It will be up to each business to determine what level of reporting is appropriate and feasible for its activities and purposes. The guideline has to recognize the range of expertise currently available, the fact that the majority of the companies do not have the data or the resources to implement this guideline as written, and the fact that many businesses do not have a need to get into a detailed, allocated scope 3 emissions evaluation. • The description of the category calculation methodology needs to be built out

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| | better, offering examples of different levels of calculation or point to existing calculation methodologies to provide the requested data. This section is really the crux of the document which directly affects the quantity and type of data that has to be collected. |
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