

Comments on File Number S7-10-22

SEC did a good job reviewing technical bases for these proposals, presenting their justification, and preparing the proposal. Nice work!

Part II A.

2 Analysts can evaluate risk profile as a function of GHG emissions over a range of scenarios based upon climate driven parameters or input energy consumption. Physical infrastructure location is needed to assess climate-driven physical risks to infrastructure. Climate change risks will be based on the maturity of the technologies underlying transition and adaptation plans.

3 SEC should base its rules on the TCFD as proposed for the reasons given. As the TCFD is updated, the rules will stay current with improvements to the science of GHG management.

5 The advantage of a separate section devoted to climate risk is that it would be easily found, assessed, and compared by specialists without having to read the entire MD & A.

7 Climate-risk management information would be useful if included in proxy statements.

Part II B Disclosure of Climate-Related Risks

8 The definition of short, medium, and long-term can be anchored to a couple absolute points in time. One is 2030, where a large number of near-term goals are pegged. Another is 2050 where the Paris Accords specify carbon neutrality. Thus 1-3 or 1-5 years is a reasonable pick for the short term as the transition to and planning for a reduced carbon-intensive economy is already well underway. Additionally, business and climate conditions are less uncertain over this time frame. Medium term could be set relative to the 2030 marker, so that would be 5 to 10 years. Information learned in the short term will be used to adapt planning for the medium term. Finally, 10 to 20 years is a reasonable bracket for long term. However these are defined, flexibility is needed. IPCC and other organizations have established targets at specific dates pursuant to global targets is also needed.

9 Definitions of climate risk in terms of physical and transitional risk within an evolving regulatory framework are good. Multiple risks will sometimes be realized simultaneously. As often said, "Bad things come in threes". Using an additive-type approach would enable segregation of contribution from various risks.

11 The compounding, additive nature of the various risks is a reality and must be addressed. Scenarios need to be constructed so various risks can be incurred simultaneously or sequentially to generate low probability, high consequence outcomes to fully inform investors. A range of scenario outcomes predicated on a range of inputs (e.g., prices, weather, regulations, technology) will need to be probability weighted, which is straightforward using Monte Carlo-type analyses (which in simple cases can be done in Excel).

12 Zip code or UMT/GPS coordinates with a limited radius are needed for reasons suggested in the proposed rules. This data enables easy assessment of vulnerability to flood, storm surge,

hurricanes, and tornadoes to a registrant's physical assets. Spread of tropical diseases as a result of changing climate can also be location dependent.

13 Pursuant to flood, requiring maps is an easy way to share pertinent information. Having those maps overlaid with FEMA flood map zones should be required. Anything along a sea coast is vulnerable. Requiring disclosure of any previous flood vulnerability by global surveys, federal or state agencies should be required. This same risk assessment approach should be applied to wildfires, tornadoes, tropical storms, and historical hurricane areas around the globe. Wildfire vulnerability areal assessments are becoming a common insurance underwriting tool.

14 SEC should use existing globally accepted definitions for water stress. Any activity that relies on water for anything other than office operations (like cooling towers or irrigation) should address water surety, if only briefly. Registrants whose markets are in water stressed regions should address potential impacts to water shortages to these markets.

15 A risk assessment of transition or adaptation strategies needs to be done to determine programmatic risk due to technological feasibility and maturity (e.g., things involving carbon capture), GHG offsets that rely on independent business partners and complex verification schemes, and in some cases geopolitical stability where business partnerships are transnational. This assessment could grade the risks as low, medium, or high as appropriate.

17 Upstream and downstream value chains must be assessed for climate resilience as proposed. COVID and war have demonstrated the highly interdependent nature of global supply chains.

18 Climate adaptation opportunities should be disclosed if the registrant is relying on them to positively impact projections. For example, if an energy producer expects to dispose of GHG exhaust into a borehole, that might not work to plan. Investors need to know such plans to make a risk assessment. Regarding a registrant's transition plan that relies on anything risky, such as a particular regulatory outcome, successful implementation of a capital project like a renewable energy generating plant, a carbon capture scheme, or an offset, justification for predicting a successful outcome should be provided.

19 You should require disclosure of climate related impacts on registrants' operations and financial performance and make it location specific where appropriate.

20 You should require disclosure of climate related impacts on products or services, supply chain or value chain, activities to mitigate or adapt to climate-related risks, including adoption of new technologies or processes, expenditure for research and development.

21 A time frame is essential to assess a registrant's viability over time. This time context needs to relate directly to stated national and global goals. For example, if an oil company said they are going to transition to renewables, investors would need to know when this is to occur relative to national and global targets of the Paris accords.

22 Current and forward projections of adaptations and investments a company plans are essential to assess transition viability for the registrant. Risk of divulging competitive tactics and

strategies can be controlled by citing protection of proprietary information. This is also useful information to investors who can ponder the viability of the proprietary information.

23 Disclosure of resource allocation across a registrant's business entities is necessary for determining the viability of transition plans. Descriptions of indirect investments, that is those investments that aren't made in a registrant's operational boundaries for the conduct of its operations, need to be fully explained in the context of climate risk management.

24 The use of RECs is problematic because they are contrived, abstract, and not backed up by tangible assets. Verification of REC accounting will be fraught with opportunities of malfeasance. Do everything you can to ensure the highest level of transparency and surety. RECs accounting in mature and verifiable markets will be more credible than international schemes where regulatory regimes are weak or non-existent. Disclosure of RECs pedigree would assist investors to judge the credibility and effectiveness of GHG accounting.

30 Regardless of method used to project future registrant financial performance, a scenario is selected. The scenario might be "base case" meaning that nothing beyond current conditions prevail for the cases evaluated. And whether articulated or not, decisions impacting future corporate activities or strategies are made every day. A formal decision analysis with quantifiable inputs and outputs is sometimes employed, and sometimes it's corporate leader s brainstorming. Either way, investors could use information about future planning methods to know if they are rigorous and robust. In the absence of rigorous planning, greater risk is associated with execution strategy success and future performance. What tools are used? Monte Carlo simulations can and are designed specifically to address complex decision analyses by enabling sampling a range of weighted probability data inputs to generate a probability weighted outcome range. The results capture normally expected outcomes in a continuum including highly unlikely "black swan" outcomes. Monte Carlo simulations can be applied to a variety of scenario classes, like "business as normal" vs "disruptive transition" vs "major hurricane/major flood" or "major wildfire", or "precipitous sea level rise" or "prolonged drought". Simple Monte Carlo simulations can be calculated with Excel or more elaborate calculations can be done with more specialized software. Fancy decision analyses software packages exist, or decision trees can be used. Regarding standardization of scenarios evaluated, the regulation should require basing registrant future viability/profitability loosely on published peer-reviewed standards like the ones cited. But these published scenarios are hardly definitive with respect to defining acute weather events in terms of frequency, intensity, duration, or location. Therefore, the approach to implementing and adapting those scenarios needs to be left up to the individual registrants because each business is unique and maintains financial viability precisely because it exploits its situation to disadvantage its competitors. Disclosure of how published standard climate scenarios were applied or adapted to a specific scenario analyzed by a registrant should be required to facilitate investor understanding of robustness, applicability and realism of the analyses. It's not unrealistic to expect that scenario analyses approaches among business sectors will converge as normal competitive practices will cross-pollinate the good ideas, which will prevail in subsequent iterations. To discourage registrants from not adopting "scenario analysis", explicitly recognize that "business as normal" is a scenario that assumes smooth transitions to

GHG reductions. Again, the goal of the new disclosure requirements is to disclose the preparedness and vulnerabilities of operations and robustness of business strategy. Requiring disclosure of any scenario analyses performed would be consistent with regulations that generally require known risks be published. But there will be scenarios evaluated that predict dire consequences, as this is a common occurrence among climate scientists, so it should be expected that businesses will experience similar findings. When a range of scenarios are evaluated, results selected for publication will be carefully vetted, and self-serving interests will bias selection toward those that won't surprise investors.

Section E. Risk Management Disclosure

42 The methods used to identify the most significant climate-related risks undergirds all subsequent risk mitigation measures, so these methods need to be transparent to investors. Of particular importance is assurance provided for investors that a comprehensive review of all vulnerabilities was conducted, that the vulnerabilities were ranked according to potential risk, and mitigation strategies are being developed commensurate with the magnitude of risk.

43 A registrant's risk management strategy and transition plan is essential and all-encompassing to investors. All the bulletized items in the question should be required to be disclosed.

44 The proposed list is good.

46 Disclosure of transition plans, along with an implementation schedule is essential to enable investor evaluation for determining realism, practicability, flexibility, and general chance of success. Requiring descriptions of transition plans might dissuade a registrant from disclosure only if the registrant suspected that the plan could not withstand public scrutiny, in which case investors need to know.

47 Transition plans to secure physical assets need to be described to enable judging its chances of success. Proposed rules are sufficient to solicit needed investor information.

48 A transition plan that relies on offsets based on protection of conservation lands needs full disclosure because the land could be burned up in a wildfire or, worse yet, the scheme is based on conserving some place in a foreign country where it lacks enforceable protection or monitoring.

49 The regulations should permit disclosure of any information related to adapting its business to projected future conditions. A registrant should be required to disclose how it intends to achieve its future configuration and business practices so that investors can assess the chances of success.

50 Annual updates to any plan should be required. This is standard business practice for capital projects using Earned Value Management Systems or something similar. There's little to be learned from a plan for the future that is several years old.

51 There's no need for separate safe harbor provisions for transition plans. The level of detail contained in these plans can be fleshed out with each iteration.

Section G. GHG Metric Disclosure

93 It's reasonable to expect consumer preferences to drive product and service innovations that reduce or eliminate GHG production. Investors will likely assign higher values to registrants who are demonstrably reducing GHG emissions. Transition plans to achieve the preferred products and services are subject to risk of execution and plan realization. Understanding how registrants intend to make transitions can be evaluated for viability, and risk/reward information will guide investor decisions.

94 Disaggregated reporting of specific gases as proposed by GHG Protocol is an adequate and widely accepted standard with supporting reporting framework to enable wide-spread adoption. Therefore, reporting GHG emissions consistent with GHG Protocol is a pragmatic choice and should be required by regulation. GHG emission data from other reporting standards like EPA or foreign entities might not be applicable to the aims of the SEC, so SEC should not lean on these organizations' requirements, which might change in ways counter to SEC needs.

95 It's not the SEC's domain to be specifying and defining GHG. Leave this to EPA and GHG Protocol. If the Protocol is updated, SEC's regulations will stay current with the science, which is aligned with investor priorities.

96 Use the GHG Protocol as the organization to define GHG reporting units. If the Protocol is updated, SEC's regulations will stay current with the science, which is aligned with investor priorities.

98 Consider a screening criterion or statement preceding Scope 3 GHG emission disclosure. Like – “An evaluation of Scope 3 emissions has been conducted and the registrant has determined that they 1) are, or 2) are not “material” as defined by GAAP.” In order to determine if Scope 3 emissions are material, an estimate of such emissions must be made. Once made, mandatory disclosure should be required. Regardless of the answer to the query, the basis for the determination should be explained. If this estimate is from a small or emerging company, then no further scrutiny (attestation) is needed. If from a larger registrant, then an attesting confirmation of the Scope 3 estimate should be provided. Voluntary confirmations provided by smaller companies need not be at the level of rigor rising to “attestation” or auditing standards. Because Scope 3 estimates are inherently more uncertain than Scope 1 and 2 emission estimates, this uncertainty realistically will manifest itself in a range of possible values. The precision of these estimates is probably low and might span an order of magnitude like 100 to 1000 tons of CO₂e. But such an estimate is extremely valuable in the absence of any other data. (Just the act of submitting a numerical estimate of emissions will drive some level of calculation rigor.) Registrants whose main business is in the energy sector should be required to have a higher emissions accounting standards than those in other sectors because these industries will receive the most scrutiny in light of international treaties and GHG reduction targets.

99 All registrants should disclose Scope 3 emissions, even if only estimated using back-of-the-envelope calculations. This will level the playing field for all registrant disclosures enabling apples-to-apples comparisons across similar businesses. The confirmation (something akin to attestation) of such estimates should apply on a graded scale with bigger emissions warranting higher scrutiny, and smaller companies requiring no confirmation if they choose. If a registrant

has published emission reduction targets, then annual emission outputs need to be compared to the targets in order that an investor can easily ascertain if planned implementation is on target.

100 Scope 3 emissions estimates should be mandatory for all registrants. Determining “materiality” of Scope 3 GHG emissions requires estimating the emissions. Once the estimate is made, it should be provided to investors. A viable registrant competing in any industry knows what it’s paying for (and it knows what its competitors are paying), including its Scope 3 emissions. It knows how its customers are using its products. The precision of this knowledge may be low by typical business accounting standards and must not be judged by such standards. But such information is vital to investors. There’s no need to slow roll the implementation of this requirement. Initial estimates might be crude being made in back-of-envelope fashion and won’t be based upon time-consuming data collection and analysis. But with each iteration, as understandings improve and more precise bases are established, these estimates will improve. At this point (2022), any information is hugely insightful. The level of uncertainty will decrease with more precise measurements in many of the estimate input parameters. Some forward looking parameter inputs based on natural processes (e.g., magnitude of hurricanes, tornadoes, or duration and intensity of drought) will remain broadly uncertain. The rigor of confirmatory reviews of the estimates will increase commensurate with the maturity of Scope 3 estimates and accompanying scenario development.

101 Disclosure of GHG emissions without offsetting contributions should be required. Then net emissions with offsets can be explained so that investors can assess plausibility of any compensating schemes to reduce net emissions.

102 A discretization of emissions by categories consistent with the GHG Protocol for larger companies should be mandatory. Base accounting requirements on the Protocol so that when the protocol is updated, the accounting requirements will update.

103 In order to aggregate emissions data, up- and downstream inputs need to be analyzed individually. This data should be shared with investors who can assess the veracity of GHG emissions data associated with each category or classification. Scope 1 emissions will be within registrant control, Scope 2 probably less so, and Scope 3 will be even less so. For example, if a part for a consumer good comes from an off-shore developing nation, it’s pedigree may be less than something that if made in the Americas, and something made in North America outside US boundaries may be given a lower pedigree than something made in USA. Investors can weigh the reliability of emissions data appropriately. No categories should be excluded from Scope 3 emissions, even when uncertainty is high. The uncertainty needs to be counted and presented. Excluding any GHG emissions because they are uncertain will exacerbate inefficiency of investor analysis. (Recall uncertainty was always the excuse for not taking action on climate change and look where that got us). If a registrant is paying for Scope 3 emissions anywhere in the product or service stream, GHG emissions can be estimated over a reasonable range. An estimated range, uncertain as it may be, is essential for informed decision making.

104 SEC should not preclude inclusion of any Scope 3 emission categories, particularly for categories that currently lack an industry accepted accounting method. Generally, a registrant knows all of its business costs, some costs with greater precision than others. If a registrant

doesn't know how to account for GHG emissions that its responsible for generating, it has a responsibility to disclose this to potential investors, who could better weigh risk/reward in light of this vulnerability.

105 Estimates of all emissions should be published as of the end of the reporting period, with a note indicating which data is preliminary and subject to revision due at the end of the next quarterly reporting period. This gives an investor the data as soon as it's available – albeit preliminary.

106 The sources and activities associated with Scope 3 emissions should be provided to the extent known by the registrant. Verification status should also be provided. No data sources should be excluded from Scope 3 emissions calculations. If comparable sources exist, published standard sources should be favored over non-standard calculation methods, unless a registrant chooses to justify its deviation from standards usage. (It's conceivable, even likely, that the registrant will have knowledge superior to generic standards for applications specific to their business.)

107 The location of emissions is pertinent to investors because location relates to physical risks.

108 The sources of emissions should be specified (reference question 106). Cartographic display of data is easily understood and easily compared to similar reports.

109, 110, and 111 Disclosure of GHG intensity metrics as proposed, per unit of revenue and per unit of production is needed by investors. The intensity of Scope 3 emissions for consumer goods is useful because consumers understand the implications, which will influence behavior and result in market share distribution, which will drive profitability.

112 All registrants can use the same GHG intensity data metrics. Notes can be added if the results appear aberrant. This would enable investors to make the most meaningful comparisons.

113 Registrants should not be limited exclusively to the metrics required by SEC. Other metrics that provide more insights into GHG intensity should be allowed in addition to the required metrics. More information is better than less to prospective investors.

115 A registrant should be required to describe method used to calculate and aggregate emissions. The registrant should follow national or international standards like GHG Protocol. Calculation methodology should not be exclusive to the GHG Protocol so that more insightful methods could be utilized to supplement the standard approach. (The GHG Protocol will evolve with more experience as improved calculation approaches are developed. These improved approaches will likely originate within the industries for which the GHG Protocol was developed).

124 A registrant should be required to describe the method used to calculate and aggregate emissions. The registrant should follow national or international standards like GHG Protocol including emissions factors, building on EPA data if useful. Calculation methodology should not be exclusive to the GHG Protocol so that more insightful methods could be utilized to supplement the standard approach.

125 A registrant should develop estimates of all emissions (Scopes 1, 2, and 3). The basis for these estimates needs to be explained to enable investors to assess credibility. Uncertainty associated with Scopes 1 and 2 emissions should be relatively small. Confirmation assuring reasonableness for Scopes 1 and 2 should be more rigorous for Scope 3 emissions. The uncertainty associated with Scope 3 emissions should be reflected in its quantification – like a range from 1000 to 1500 metric tons of CO₂e. A distribution could be associated with this range – like a normal distribution with 1250 as the mean with a standard deviation (if associated data can support this description). Or it could be a uniform distribution where knowledge of the emissions is less. Scope 3 emission estimates for large companies should be accompanied by some sort of attestation certifying that the estimates are reasonable given what is known and a set of reasonable assumptions. A confirmation of reasonableness from smaller registrants could be optional. Preliminary emissions data should be provided concurrent with normal accounting scheduled disclosures and these data should be updated when better estimates are finalized during the subsequent accounting period.

126 The source of all emissions data should be disclosed so that investors can assess credibility. Scope 3 emission estimates should be required regardless of materiality so that investors can assess the credibility of the assertion that the emissions are or are not material.

127 Tracking and monitoring emissions, past and present, are fully integrated into the GHG Protocol. Data that enables investors to compare current data to past data requires that the basis for historical data be adjusted if organizational or operational boundaries or accounting approaches have changed. The full story needs to be presented when such adjustments are made.

128 SEC needs to accept and emphasize to registrants that emissions data are imprecise relative to financial accounting standards. There will always be gaps, estimates, uncertainty, and imprecision. Emissions data disclosures need to give the full picture, even in the absence of perfect or even normally acceptable knowledge levels. Registrants need to present uncertain data as ranges, gaps and all. Uncertainty characterization will become a condition or approach for full disclosure.

129 As you have proposed, you want to preclude accounting tricks that facilitate a distorted picture of emissions, regardless of Scope 1, 2, or 3. Take whatever measures are needed to discourage businesses from outsourcing emissions for the purpose of manipulating their numbers. There should be no exceptions nor should there be a need. Again, where ever emissions occur in registrant's product or service stream, because they are paying for them, they'll have a good idea of quantity.

130 Any known or suspected overlapping emissions accounting needs to be disclosed for clarity. Under counting or overcounting should be highlighted and explained for accuracy and clarity.

131 Emissions data will be uncertain, but the uncertainty can be bounded using credible assumptions. SEC cannot justify limiting uncertainty ranges apriori. Uncertain data associated with climate and weather, be this drought intensity measures (temperatures, duration and spatial extent), hurricane wind speed and direction, sea level rise, storm surge, maximum flood level, flow rate and duration is routinely expressed as a range. But this is only part of the story. The

other part is the frequency distribution of that range. Some distributions are normal, some are skewed normal, some bimodal, and some log normal, and in the absence of supporting data, it's generally conservative to assume a uniform distribution (meaning all intensities are considered equally probable). (For example – what will rain intensity be in the next super storm or hurricane passing through New Orleans or New York? There'll be a historical average with a relatively high probability, but the frequency distribution curve will have a long tail, capturing the possibility that 36" could fall in an hour. Its probability is low, and would carry severe consequences, but it is possible.) These data range characterization tools should be recognized and encouraged for use when estimating emissions or when formulating scenario bases, which will propagate through to estimates of business robustness, resilience, vulnerability and GHG emissions. Ensuring a range of data is not overly broad (given the inputs) should be achieved by an independent review (part of attestation) to confirm the bases are reasonable, and the quantification approach was reasonable. Predictions of emissions data will derive from scenario inputs. The range of scenarios that are plausible for a given registrant can be broad to capture the range of natural system inputs, input cost uncertainty, and regulatory constraints. The selection of scenario details and inputs must be left to the discretion of the registrants, and there will be endless potential for variations. This will drive an output range that might seem broad by traditional accounting practices, but wide ranges are the reality we need to get used to.

132 Adopting standard GHG accounting methods should be required to enable easy comparison between registrants. If a registrant has a superior way to account for its emissions, these can be used to enhance or supplement the standard accounting approach. Deviations to the standard for innovative approaches need to be explained in the context of published standards, again to enable comparisons.

133 SEC's safe harbor proposal is reasonable. Early Scope 3 emission estimates should not be advertised as accurate. They should be required as soon as possible while better quantifications and estimates are being formulated. Global goals of emission reduction are based in absolute terms of time and CO₂e. Any delay in implementation reporting requirements is counter-productive to investors' demand for information and risk management. SEC's proposal for discouraging fraudulent information is good. In the first couple years, emission estimates will be much inferior to subsequent iterations of the same data. Registrants should not be held liable for imprecision or inaccuracies unless fraudulent intent is shown. Some emissions estimates, including some of the Scope 3 estimates, may never be sufficiently well characterized to warrant phasing out of a safe harbor provision.

134 There should be no exemptions for Scope 3 emission estimates. A better approach is to accept less precise estimates (literally back-of-the-envelope) recognizing uncertainties and limitations. To delay full implementation is to kick the can down the road. Bad news won't get better with age, in fact it's much worse because it precludes investors from obtaining the data they need to efficiently allocate capital, when emission reductions have fixed end targets, many prior to 2030. A phase-in period (like five-years) would preclude acting on many potential opportunities in the new term.

135 Assurance should be required for all accelerated and large accelerated filers for Scopes 1, 2 and 3 with a graded approach to robustness of attestation (Scope 3 confirmatory review being less than Scopes 1 and 2). Since a company has estimated its Scope 3 emissions (to determine materiality), the burden to confirm the reasonableness of these estimates would be trivial. As a registrant prepares to publish its emissions of all scopes, then it almost certainly performed an internal check of the estimates. The initial preparation of the estimates, in addition to the internal correctness and accuracy check, would leave a transparent rationale of calculations and methodology for an outside attestation provider to follow.

136 The little to be gained by a phasing in of Scope 3 emissions estimate review and attestation over time is outweighed by the benefit to disclosing and confirming what is known as soon as possible. SEC's suggestion to require an attestation report covering the process or methodology for calculating Scope 3 emissions, and not the actual calculations is a great idea. There is enough flexibility in the limited assurance definition to enable a preliminary attestation to provide investors with confidence that estimates are plausible, reasonable, and leaning toward credible.

137 Initially requiring attestation from accelerated and large accelerated, and not from smaller companies, is a good balance in the decision of how to solicit confidence in GHG estimates. The more important thing is to require all registrants to provide estimates of Scopes 1, 2, and 3 emissions estimates, even when they are from small companies and only preliminary.

138 Requiring attestation from smaller registrants should be phased in over time when the practice of making GHG emission estimates is more routine as will be the confirmatory attestation reviews.

139 The phase-in of attestation and robustness of attestation levels that SEC has proposed is reasonable. As SEC has observed, there's little difference in investor confidence between limited and reasonable assurance levels.

140 Accelerated and large accelerated filers should have the same transition periods to implement attestation standards as proposed. The phase-in of attestation and robustness of attestation levels that SEC has proposed is reasonable. There's little difference in investor confidence between limited and reasonable assurance levels.

141 The definitions of limited vs reasonable assurance are likely generally broadly understood within the context of a particular business segment and auditing practice. However, SEC should cite acceptable examples of where the definitions are provided. SEC should avoid defining the terms to enable flexibility in application to best meet registrant circumstances.

142 At this time, there is no basis for having GHG emission disclosure separate from the existing requirements with respect to the assessment and effectiveness of DCP. Adding requirements to ensure GHG emission assessments are timely and duly considered by management would be redundant to existing requirements.

143 ii(d) Implementing the GHG emission quantification agenda will cost more than doing nothing. But the benefits have been determined to outweigh the costs because the financial audit disclosure process will become a multidimensional assessment containing risk informed

perspectives and trade-offs. The same risk assessments that investors need can be used by corporate management boards to manage risk.

Disclosure of registrant risk based on GHG emissions to benefit investors is best achieved by having the most qualified professionals perform the emissions assessment in the context of investor decision-making. Who is the most qualified? – CPAs and financial professionals or auditors, or insurance underwriters, or is it environmental consultants, probabilistic risk consultants, production plant managers, or boots-on-the-ground operations managers within the product and service supply chain? Of course, it's all of the above working together. So, what is the best management structure to implement an interdisciplinary program that calls on diverse technical specialties? The registrant GHG emission assessment will be created in large part using in-house expertise supplemented as needed by outside consultants. Confirmatory independent audits of this assessment will be conducted, in part by existing public accounting firms, which will reduce costs vs having the GHG emission confirmatory assessments done as a separate audit. But because of the broad scope of these assessments, which span beyond standard financial accounting practices, technical specialists will need to participate in the reviews. These specialists could either report to the CEO, or to the independent public accounting firm. Either approach is workable to generate a robust confirmatory review. A CEO should be able to call and rely upon technical consultants (industrial engineers, environmental engineers, and risk consultants). Using this broader expertise would enhance and increase the complexity and reliability of the audits because scientific and engineering disciplines are accustomed to rigorous computational and accuracy checks, peer review cycles, and high scrutiny certification and publishing environment. These technical specialists are often certified by professional licensure boards (registered professional engineers or International Council on Systems Engineers for example), or they work to professional organization standards (like American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), American Society of Chemical Engineers (ASChE), or American Society of Testing Materials). Directing the PCAOB to develop a framework to enable qualified professionals and technical specialists to be screened and approved for participating in the attestation audits would be a good way to complementarily mesh these technical specialists to the purpose of financial accounting.

143 ii(e) An advantage of doing the climate risk assessment is that the same GHG risk assessments that investors need can be used by registrant management boards to manage risk.

144 The qualifications of GHG attestation providers as proposed by SEC is the right approach, meaning these providers need to be professionals at their trade and know how to prepare unbiased reports documenting audit findings. Having GHG emission auditing firms registered through some screening and certification process defined by the PCAOB is a pragmatic way to formally engage with such firms. As mentioned above, PCAOB would be a logical choice to develop a framework building on expertise and professional organizations such as National Society of Professional Engineers, ASCE, ASME, and ASChE and others. Specifying that the attestation providers be “experts” might be difficult to demonstrate compliance. This is a new field, so there may be insufficient experts. But there's no shortage of qualified professionals to conduct the GHG emission assessment. Even requiring a minimum

duration of experience could overly constrain the firms who are adequately qualified to make the assessments. Complying with GHG emissions tracking as prescribed by the GHG Protocol is a simple concept, and generally won't require expertise beyond the professional standards of engineering licensure certification and PCAOB registration.

145 Firms that assert they are qualified to conduct GHG emission accounting should be required to have corporate business practices and procedures established that ensure credible and respected outcomes are generated as a result of each contract executed by the firm. These firms must have hiring standards and corporate technical training established as part of their human resources management such that staff working on emission tracking certification are qualified for the work. Such firms need to conduct audits, create reports capable of withstanding peer scrutiny, and be prepared to accept liability.

146 Credibility of the GHG emissions audit organization is predicated on it being completely independent of the firm being audited. All the standard provisions to preclude conflict of interests or perceived conflicts need to be established, declared, and demonstrated.

147 and 148 All the conflict-of-interest precautions that SEC is proposing are needed to preclude another Enron or Enron by the Sea in the realm of climate risk assessment certification, and is needed for assuring investors of unbiased climate risk assessments.

151 Any disagreements between the auditing firms and a registrant need to be fully explained as proposed. Divergent interpretation of comparable accounting data is part of full disclosure and informed consideration, and can be expected.

152 In general, GHG attestation providers from the technical service industry will have quality control standards, practices, and procedures that would generally align with PCAOB, AICPA, or IAASB standards. However, the quality control programs of the accounting world must be mapped against technical service providers so that omissions or gaps can be rectified. GHG emission attestation providers could adapt their quality assurance and management plans to accommodate SEC standards with little effort. They may have multiple clients, each requiring a specific set of quality controls and reporting formats.

153 Having an attestation provider be liable for the quality of their work is necessary to ensure reliable and credible audits. This liability would not disincentivize attestation providers because 1) this is standard business practice, and 2) this is what the attestation provider is paid to do. Certification by an attestation provider of a registrant's GHG accounting results has no credibility if it's found to be incomplete or inaccurate and there's no consequences.

Section 3 GHG Emissions Attestation Engagement and Report Requirements

154 The attestation engagement and related attestation report should be provided pursuant to standards as proposed.

155 The standards must be available to the public at no cost. The standards must meet the relevant scope requirement as proposed by the SEC.

156 A minimum scope and quality level should be established for the attestation standards as proposed by the SEC for reasons articulated by the SEC.

157 SEC should adopt all of the items proposed (relevance, objectivity, measurability, and completeness). Pursuant to “completeness”, SEC should add the following to be assessed and addressed by the registrant and confirmed by the attestation provider: Confirm the registrant conducted a climate risk assessment that recognized the most significant vulnerabilities specific to the registrant and that the most salient risks were addressed.

Defining the bounds of a risk domain is subjective, so a confirmation of risk selection should be made. Without this requirement, a registrant might not address its most important vulnerabilities and an attestation provider might not assess if all material climate vulnerabilities were considered. It might address some material risks, but omit others. For example, a registrant may have significant physical infrastructure in low lying flood- and hurricane prone areas and not address potential for rising seas, or higher incidence and intensity of hurricanes and storm surge. A business that relies on availability of wood products might not recognize that wildfires and bark beetle can significantly impact raw material availability. A business that relies on selling gas and diesel for the transportation industry might not recognize the potential for changing fuel efficiency standards or changing consumer preferences.

159 Use of the GHG Protocol methodology should be permitted as a basis for attestation standards.

Section 4. Additional Disclosure by the Registrant

161 A registrant should justify its selection of an attestation provider. This may be a license from an accreditation board, or it might be a resume-like disclosure of attestation capabilities and credentials. There might not be licensed providers that are suited to understand and fairly assess unique business concerns, which could be specialized or highly technical.

163 Attestation providers need to have and maintain a robust, reliable, and resilient records system, including records handling procedures, that meets some minimum set of generally accepted accounting standards. Records should be protected and safely maintained to enable liability questions to be resolved over durations consistent with general financial accounting practices.

Section 5

164 Any attestation of climate related accounting by firms exempted from GHG emission assessments should be made available to investors. The proposed list of topics to be addressed is appropriate. Establishing guidance clarifying the difference between assurance and verification is needed because its possible the third party review won't be aware of the specific terminology differences.

165 If the attestation provider is not independent of the registrant as prescribed for accelerated and large accelerated filers, the “non-independent” relationship needs to be fully described. The registrant can justify its use of a non-independent provider explaining the benefits of pursuing such an engagement.

167 Quantitative disclosure of fees for attestation providers is not as important as disclosure of contractual arrangement between the registrant and the provider. Non-standard contractual arrangements should be disclosed.

Section J – Targets and Goals Disclosure

168 Forward-looking transitional plans to a lower GHG emissions business model, as proposed, is fundamental to investor needs. This required disclosure might inhibit a registrant from disclosing plans when it is not confident it can execute according to plan. But generally, no information about adaptation will be interpreted as no plans, and this is something that will decrease the value of a business, so there is a market-driver for the disclosure of adaptation plans.

169 All of the bulleted items in the proposed list of disclosures are relevant to investors assessing climate risk.

170 Discussion of adaptation or transition plans is essential. A prominent omission in the bulleted list is an assessment of how risky each element of an adaptation strategy is. For example, let's say a registrant intends to burn fossil fuel to generate electricity and "capture" its exhaust in a borehole. It might sound good to some, but others will see this as unproven technology and highly unlikely to implement at scale. A cursory technical risk assessment could disclose that this is unproven technology and thus more risky than proven technologies. An offset scheme based on preserving a tract of forested land that could be lost in a fire or killed by bark beetle is riskier than establishing a wind/solar farm. Justification for adaptation plan viability would add significantly to the plan.

171 Requiring registrants to report progress relative to goals is essential to knowing if the goals are realistic.

173 RECs and offsets are a magnet for hucksters and frauds. The attraction of scoundrels to elaborate GHG accounting schemes is matched only by the stubborn determination of thermodynamics to liberate "captured" carbon. Required disclosures to preclude another Enron need to be established.

Section J

175 Small companies should not be exempted from any of the requirements imposed on larger companies for several reasons: 1) these proposed rules don't prescribe a level of rigor or detail to the disclosures, which enables small companies to provide only as much detail and devote as much time as they want to the disclosures (imperfect and partial information is preferable to no information), 2) preferential treatment to small firms sway business decisions away from options that tend toward using or creating larger firms, an artificial factor in an otherwise free market, 3) smaller, more nimble and innovative firms could emerge as crucial contributors to a sustainable economy and full disclosures from such registrants could be used by investors to more efficiently allocate capital accordingly, and 4) small companies can estimate Scope 3 emissions as well as the large registrants because their smaller scope of operations means less complex product/service chains (investors prefer estimates with uncertainty over no information).

176 Foreign firms need to have the same requirements as domestic registrants to maintain a fair competitive environment.

179 All IPOs should have information devoted to planning for a zero or low emission economy. It'll be forward-looking, uncertain, and hence subject to the same limitations and protections given to any future-looking statements.

180 Mergers or acquisitions should be subject to required disclosures as proposed. One year is adequate transitional relief time to develop such disclosures.

183 Alternate reporting regimes, after a certification process should be allowed for providing GHG emission data, however a conversion to SEC standards should be required for the convenience of US investors.

184 Alternative reporting regimes, once certified as equivalent in rigor and scope, need to meet equivalent disclosure requirements (Scopes 1, 2, and 3 and TCFD recommendations) proposed by SEC for accelerated and large accelerated filers. No exemptions for Scope 3 emission disclosure schedule should be made.

185 An alternative reporting regime, once certified as substantially equivalent or better, needs to convert its disclosures to formats prescribed by SEC in all aspects.

187 Information provided through an alternative reporting regime needs to meet all bulletized items as proposed.

189 SEC rules need to meet the needs of US investors regardless of what an international standards body promulgates. This may require adjustments to the rules as industry compliance improves, international practices improve global coordination, and as investors demand.

197 The shorter effectivity schedule proposed by SEC for large filers is fine for all companies. Disclosure standards proposed are qualitatively described; there are no quantitative metrics to determine failure - like driving a "safe" speed (analogous to relevant, objective, measurable, and complete) on a road with no speed limits could be 50 for some and 90 for others. This means the effort put into meeting the proposed standards is at the discretion of the registrant. GHG emission data are estimates generated with uncertainty. Absolute estimate accuracy is arbitrary and will be the "best available". Uncertainties will lessen with time and practice. Small companies will be able to respond quicker to these new disclosure requirements than large companies because of the simpler scope of operations. Small companies should not be exempted from any of the requirements imposed on larger companies for several reasons: 1) these proposed rules don't prescribe a level of rigor or detail to the disclosures, which enables small companies to provide only as much detail and devote as much time as they want to the disclosures (imperfect and partial information is preferable to no information), 2) preferential treatment to small firms sway business decisions away from options that tend toward larger firms, an artificial factor in an otherwise free market, and 3) smaller, more nimble and innovative firms could emerge as crucial contributors to a sustainable economy and full disclosures from such registrants could be used by investors to more efficiently allocate capital accordingly.

198 Small companies can estimate Scope 3 emissions as well as the large registrants and they can do it faster because their smaller scope of operations means less complex product/service chains. Investors much prefer estimates with uncertainty over no information. Emission estimates should come with uncertainty estimates, which will enable investors to assess the accuracy of the estimate.

End of comments

Comments on File Number S7-10-22

Cliff Howard, Env