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Comments to SASB on reporting standards

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Introduction

Background on PFPI

Partnership for Policy Integrity (PFPI) is pleased to submit the following comments on the Sustainability Accounting Standards Board (SASB) Exposure Draft of the Standards. We are a nonprofit based in Pelham, Massachusetts that uses science, legal action, and strategic communications to promote sound energy policy and to help citizens enact science-based policies that protect air, water, ecosystems, and the climate. Our current work focuses on biomass energy and oil and gas extraction. Our comments to SASB primarily focus on the treatment of biomass for energy and feedstock under the standards.

PFPI has significant experience analyzing disclosures to investors and consumers made by firms that specialize in bioenergy or companies, such as utilities, that generate bioenergy. In 2013, we sent a report to the U.S. Securities and Exchange Commission asking the agency to investigate the public disclosures of three US firms that use bioenergy and to provide guidance on appropriate disclosures in the context of bioenergy.[1] In 2014, we sent a report to the Federal Trade Commission, outlining greenwashing by 17 US companies that use bioenergy.[2] Finally in 2016, we sent a complaint to the SEC on greenwashing claims by the US company Enviva that manufactures wood pellets as biomass fuel for use in Europe and the UK.[3]

In our review of the SASB standards, we found that SASB's treatment of biomass and bioenergy serve to perpetuate many of the problems we identified in our reports to the SEC and FTC. We are concerned that if the SASB standards are not made more rigorous, they could influence companies to issue misinformation about biomass and bioenergy that misleads investors.

We have additional concerns with the standards, and with the SASB process, including SASB's apparent decision to limit disclosure to events that are likely to occur within five years. We believe that this time horizon is too narrow and would likely influence companies to withhold material information from investors.

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[1] Analysis of Risks and Corporate Disclosures Regarding Environmental and Climate Considerations in the Biomass Power Sector. Partnership for Policy Integrity (November 2013). Available at http://www.pfpi.net/wp-content/uploads/2013/11/PFPI-report-to-SEC-on-bioenergy-Nov-20-2013.pdf. Letter from investment groups to U.S. Securities and Exchange Commission regarding undisclosed investment risks from biomass power with analysis of disclosures by Dominion, Southern Company, Covanta. Partnership for Policy Integrity (November 20, 2013). Available at http://www.pfpi.net/wp-content/uploads/2013/11/Investor-letter-to-SEC-on-bioenergy-Nov-20-2013.pdf.

[2] Climate of Deception: Why Electricity Consumers Who Care About Global Warming and Air Pollution Need FTC Protection from Biomass Industry Greenwashing. Partnership for Policy Integrity (July 29, 2014). Available at http://www.pfpi.net/wp-content/uploads/2014/07/PFPI-report-to-FTC-on-biomass-power-greenwashing.pdf

[3] Carbon Emissions and Climate Change Disclosure by the Wood Pellet Industry – A Report to the SEC on Enviva Partners. Partnership for Policy Integrity and Dogwood Alliance (March 14, 2016). Available at http://www.pfpi.net/wp-content/uploads/2016/03/Report-to-SEC-on-Enviva-March-14-2016.pdf

Overview of biomass and bioenergy

The following material is taken from reports PFPI has published previously. For detailed examples of companies either failing to disclose information on bioenergy material to investors, or actively misleading investors, see our previous reports (footnotes above).

Bioenergy carbon and forest impacts

Biomass energy generation – the combustion of wood, agricultural residues, and other biological materials as fuel for heat and power – has increased significantly in the US and abroad in recent years, driven by the eligibility of bioenergy to meet mandated renewable energy targets and generous renewable subsidies available for renewable technologies. In the EU and UK, emerging demand for biomass is too large to be met with local sources, thus power companies import millions of tons of biomass each year, a large proportion as wood pellets from North America.

Although biomass power plants emit more CO_2 per megawatt-hour at the stack than fossil fueled plants, biopower companies and marketers often claim that biopower is "carbon neutral" or "reduces greenhouse gas emissions." These marketing claims, which are almost never substantiated, are based on the assumption that CO_2 emissions from biopower are uniquely "offset," in contrast to emissions from fossil fuel combustion.

Two basic lines of reasoning underlie such claims. The first is that only waste materials - such as lumber mill shavings, paper mill waste, and "forestry residues," the tops and limbs left over after saw-timber harvesting - are used as fuel. It is argued that because these waste materials would have inevitably decomposed and emitted CO_2, burning them as fuel in biomass power plants emits no more CO_2 than would have occurred anyway, and can therefore be considered carbon neutral. Additionally, some biopower companies claim that burning wood waste materials instead of allowing them to naturally decompose prevents the production of methane, a greenhouse gas with greater potency than CO_2. The problem with this argument is that while burning emits CO_2 instantaneously, wood decomposition takes years to decades, and is in fact generally not a significant source of methane.

The second main argument for biopower being carbon neutral is that when whole trees are used as fuel, carbon emissions are offset as standing and/or new trees grow and take up an equivalent amount of CO_2 as was released by burning. Again, however, burning biomass emits CO_2 instantly, while regrowth takes decades, and in addition, harvesting forests for fuel compromises their ability to serve as a "sink" for atmospheric CO_2.

Although a plethora of science demonstrates that burning trees for energy increases carbon emissions and can harm efforts to mitigate climate change, bioenergy is subsidized as renewable energy both in the US and abroad. Carbon trading and renewable energy programs generally ignore the considerable time-lag between bioenergy stack emissions and hypothetical offsetting through new forest growth, as well as the lack of any institutional or legal mechanism for ensuring forest regrowth actually offsets emissions.

The demand for biomass is growing rapidly, and already requires harvesting millions of tons of wood from forests each year. Impacts are being particularly noted in the Southeastern United

States, where the wood pellet manufacturing industry harvests wood from both pine plantations and native lowland hardwood forests that are valued for their exceptional biodiversity and high carbon storage value.

Background on federal investor disclosures and SASB standards

Our work has extensively documented how bioenergy companies fail to disclose information material to investors, and routinely make misleading statements on the environmental "benefits" of bioenergy. SASB appears to be at least marginally aware of the risks and controversies concerning bioenergy, because in at least one of the standards (for Pulp and Paper) SASB includes a "Note" to the "Energy Management" metric (page 110 of redline) that "*The registrant shall discuss risks and uncertainties associated with the use of biomass for energy.*" However, this is wholly inadequate in the context of what securities laws require for disclosure, and the standards to which SASB itself aspires.

Companies must disclose information that is "material" to investors

The Securities Exchange Act ("the Act") requires publicly traded companies registered with the U.S. Securities and Exchange Commission (SEC) to disclose certain information to assist investors in making informed investment decisions. Regulation S-K, in particular, requires various qualitative and quantitative disclosures that are relevant to bioenergy and its environmental impacts.

Item 101, governing the company's general description of business operations, requires disclosure of the material effects that complying with federal, state, and local environmental provisions may have upon the capital expenditures, earnings, and competitive position of the registrant and its subsidiaries. The company is required to disclose any "material estimated capital expenditures for environmental control facilities for the remainder of its current fiscal year and its succeeding fiscal year and for such further periods as the registrant may deem material."

Item 103, governing the disclosure of legal proceedings, requires a company to disclose material environmentally-related administrative or judicial proceedings. The SEC provides two specific materiality thresholds which require disclosure if the proceeding involves a claim, sanction or expenditure that exceeds 10% of current assets, or if the proceeding involves a governmental authority seeking potential sanctions over $100,000.

Item 303, governing disclosure in the Management Discussion and Analysis section of a financial report, requires a registrant to disclose "where a trend, demand, commitment, event or uncertainty is both presently known to management and reasonably likely to have material effects on the registrant's financial condition or results of operation." Such trends can include environmental issues such as impending environmental regulation.

Companies' environmental disclosures are also subject to the anti-fraud provisions of SEC Rule 10b-5, which prohibits a company from making false or misleading statements in SEC filings. The Rule also prohibits a company from under-reporting or omitting information that a

reasonable investor would likely consider material given the total amount of information available to the investor.

Where a Company has published information that is later materially affected by subsequent events, it must publish a Form 8-K, updating that information.

In addition to information expressly required by Commission regulations, Securities Act Rule 408 and Exchange Act Rule 12b-20 require a registrant to disclose in registration statements "such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading."[4] The "further material information" should include "known trends, events, demands, commitments and uncertainties that are reasonably likely to have a material effect on financial condition or operating performance," or cause the reported financial information to be non-indicative of future operating performance or financial condition.[5]

Companies must disclose information to investors that is "material," a term that is subject to interpretation.

Many registrants and auditors use as a rule of thumb a quantitative definition that defines as material any data with financial impact exceeding 5%-10% of net income. Although the 5% threshold is widely used, the SEC points out that this materiality definition has no basis in accounting literature or law. On the contrary, under the SEC's pronouncement on materiality, Staff Accounting Bulletin 99 (SAB 99) clarified that qualitative information can be material, and that "exclusive reliance on certain quantitative benchmarks to assess materiality in preparing financial statements and performing audits of those financial statements is inappropriate; misstatements are not immaterial simply because they fall beneath a numerical threshold."

The Bulletin provided several cases in which disclosures that fall beneath the 5% threshold can in fact be material, such as when the disclosure refers to a company's regulatory compliance, or if it relates to an important portion of the registrant's business operations. Both of these criteria are relevant to bioenergy, and to the companies we evaluated in prior analyses sent to the SEC.

The Financial Accounting Standards Board, a nonprofit that establishes financial accounting and reporting standards for public and private companies, provided another definition of materiality in its Statement of Financial Accounting Concepts No. 2 (FAS 2), which takes a relatively expansive view. The FAS 2 states that a disclosure should be made if its omission or correction would probably change or influence "the judgment of a reasonable person relying upon the report."

In 1976, the Supreme Court, in TSC Industries Inc. v. Northway, Inc.[6] mirrored the FAS 2's definition by concluding that a disclosure is material if there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having

[4] 17 CFR 230.408 and 17 CFR 240.12-b.20.

[5] Release No. 33-8350 (December 19, 2003) [68 FR 75055] (the "2003 Release").

[6] TSC Industries, Inc v Northway, Inc, 426 US 438, 449 (1976).

significantly altered the 'total mix' of information available." In addition, the Court maintained that a disclosure is material if "there is a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote." In Basic, Inc. v. Levinson, the Court concluded that materiality must be based on "delicate assessments of the inferences a 'reasonable shareholder' would draw from a given set of facts and the significance of those inferences to him."[7]

The obligation to disclose exists even when there is uncertainty about ultimate significance of emerging scientific information. The Supreme Court decision in Matrixx Initiatives, Inc. v. Siracusano[8] No. 09-1156 (U.S. March 22, 2011) demonstrated that there is an obligation under the federal securities laws to reveal details of the observed side effects of a drug to investors even though the information did not rise to the level of statistically significant data. Matrixx sought a "bright-line rule that reports of adverse events associated with a pharmaceutical company's products cannot be material absent a sufficient number of such reports to establish a statistically significant risk that the product is in fact causing the events." Without such scientific reliability, Matrixx argued, any adverse event reports would be merely anecdotal. But the Supreme Court ruled that such a "categorical rule would 'artificially exclude' information that 'would otherwise be considered significant to the trading decision of a reasonable investor.'… "not to say that statistical significance (or the lack thereof) is irrelevant—only that it is not dispositive of every case." The determination of whether or not a particular set of facts rises to the level of materiality that necessitates disclosure requires review of the source, content, and context.

Although disclosures are affected by management interpretation, the SEC has established a presumption in favor of disclosure. According to a Commission Statement issued January 2002,[9] a matter should be disclosed in the management's discussion and analysis (MD&A) of an annual report, unless the management has concluded that such item cannot reasonably impose a material impact on the company:

"Two assessments management must make where a trend, demand, commitment, event or uncertainty is known:

1. Is the known trend, demand, commitment, event or uncertainty likely to come to fruition? If management determines that it is not reasonably likely to occur, no disclosure is required.

2. If management cannot make that determination, it must evaluate objectively the consequences of the known trend, demand, commitment, event or uncertainty, on the assumption that it will

[7] Basic Inc. v Levinson, 485 US 224 (1988).

[8] Matrixx Initiatives, Inc. v. Siracusano, 563 US ____ (2011).

[9] Securities and Exchange Commission, "Commission Statement About Management's Discussion and Analysis of Financial Condition and Results of Operations," Release No. 33-8056 (Jan. 22, 2002) [67 FR 3746] at 3748, available online at http://www.sec.gov/rules/other/33-8056.htm.

come to fruition. Disclosure is then required unless management determines that a material effect on the registrant's financial condition or results of operations is not reasonably likely to occur."[10]

SASB's criteria for disclosure standards

SASB's standards are supposed to help companies determine what information is material and therefore must be disclosed to investors under federal law. The standards are intended to constitute "suitable criteria" for reporting, and have the following attributes:

- *"Relevance—Criteria are relevant to the subject matter.*
- *"Objectivity—Criteria are free from bias.*
- *"Measurability—Criteria permit reasonably consistent measurements, qualitative or quantitative, of subject matter.*
- *Completeness—Criteria are complete when subject matter prepared in accordance with them does not omit relevant factors that could reasonably be expected to affect decisions of the intended users made on the basis of that subject matter."*[11]

SASB's standards *"are intended for use by public companies and by investors to inform investment decisions. The standards are designed to facilitate disclosure of financially material sustainability-related information in a concise, comparable, cost-effective, decision-useful format. The Standards reflect the fact that certain sustainability information is important for assessing the future financial performance of an issuer, particularly over the long term."*[12]

<u>SASB's time horizon for gauging material information may be too short</u>

However, despite the sometime emphasis on the "long term," a shortcoming of SASB's standards across all economic sectors is that the standards seem to limit disclosures to events that are likely to occur in periods as short as five years, [13] a time horizon inconsistent with the goal of sustainability – a concept that implies that a product or process can be continued into perpetuity. At the very least, SASB offers contradictory language about whether the standards require disclosure of information that is material in the short-term or long term. A document available in the library on SASB's website entitled "SASB's Approach to Materiality for the Purpose of Standards Development, Staff Bulletin No. SB00207062017" includes a table describing SASB's

[10] From the Securities and Exchange Commission: "Commission Statement About Management's Discussion and Analysis of Financial Condition and Results of Operations," Release No. 33-8056 (Jan. 22, 2002) [67 FR 3746] at 3748, available online at http://www.sec.gov/rules/other/33-8056.htm.

[11] See, e.g. Sustainability Accounting Standards Board, Proposed Changes to Provisional Standards, Exposure Drafts, Redline of Standards for Public Comment, Renewable Resources & Alternative Energy Sector, at 3. Available at https://www.sasb.org/exposure-drafts/.

[12] Sustainability Accounting Standards Board. Exposure Drafts. Available at https://www.sasb.org/exposure-drafts/.

[13] Sustainability Accounting Standards Board. SASB's Approach to Materiality for the Purpose of Standards Development, Staff Bulletin No. SB00207062017, at 2-3. Available at http://library.sasb.org/wp-content/uploads/2017/01/ApproachMateriality-Staff-Bulletin-01192017.pdf?hsCtaTracking=9280788c-d775-4b34-8bc8-5447a06a6d38%7C2e22652a-5486-4854-b68f-73fea01a2414.

process for developing disclosure standards. The table says that SASB first identifies "sustainability topics," and assesses *"the likelihood that corporate performance on the topic will have a direct and measurable impact on near- or medium-term financial condition or performance (italics added)."*[14]

Next, SASB evaluates "whether the topic affects the company's financial condition or operating performance." The third step in SASB's standards development occurs when "*analysts conduct valuation analysis such as Discounted Cash Flow (DCF) modeling across a five-year time horizon, to assess the probability and magnitude of a potential financial impact…."*[15] Whether the five-year time horizon applies only to discounted cash flow modeling or to other valuation analyses, SASB indicates that it is relying on "near- or medium-term" considerations, a time horizon inconsistent with the goal of "sustainability" that the standards were created to address. The concept of "sustainability" means the ability of an economic activity or resource to continue indefinitely without undermining other economic activities or resources. SASB, itself, acknowledges that sustainability is a long-term concept in the "Purpose and Structure" statement found at the beginning of each economic sector's standards. *"The Standards reflect the fact that certain sustainability information is important for assessing the future financial performance of an issuer, particularly over the long term,"* SASB states.[16] This statement seems to contradict the "near- or medium-term" language found elsewhere. Either SASB should change its formula for developing its standards to ensure that companies disclose material information that affects long-term sustainability well beyond five years or SASB should clarify that its standards do *not* in fact require disclosure of material facts related to long-term sustainability.

<u>SASB is not transparent about the actual timeframe considered</u>

In addition, it is not easy for investors or the public to know that SASB might be relying on a time horizon as short as five years to determine its sustainability standards. We found out about the standard through an attorney who is familiar with SASB. However, SASB discloses the five-year time horizon in a document that is relatively difficult to find on the organization's website while the language indicating that SASB is focused on long-term sustainability seems much more prominent. It was featured at the beginning of each of three economic sector standards that we examined. SASB should make clear in a more prominent place exactly what time horizons it is using to develop its disclosure standards.

Biomass and bioenergy disclosures

We have provided extensive detail on how companies routinely misrepresent biomass energy impacts in our reports to the SEC and FTC. Having evaluated SASB's disclosure standards in light of this history, we encourage SASB to develop much more rigorous standards for disclosures regarding bioenergy to avoid exacerbating existing problems. The treatment of

[14] Id. at 4.

[15] Id. at 2.

[16] See, e.g. Sustainability Accounting Standards Board, Proposed Changes to Provisional Standards, Exposure Drafts, Redline of Standards for Public Comment, Infrastructure Sector, at 3. Available at https://www.sasb.org/exposure-drafts/.

biomass and bioenergy is a true cross-cutting issue across a variety of sectors, and SASB has a real opportunity here to increase transparency and bring meaningful and much-needed change.

A variety of types of companies are involved in biomass and bioenergy. Some of these are:

Industrial users that generate onsite heat and power (and sometimes electricity for the grid)

- Pulp & Paper sector
- Containers & Packaging sector
- Wood product companies (sawmills)
- Food/agriculture product companies (e.g., sugar companies that burn bagasse)

Incinerators, Waste-to-Energy Sector

- Companies that burn garbage and may also generate energy. The biogenic portion of municipal waste is often classified as "biomass"

Cement manufacturers

- Companies may burn a variety of materials classified as "biomass," including tires and waste

Utility generators

- Companies that own standalone biomass power plants that generate power for the grid
- Companies that own coal plants that co-fire biomass

Wood pellet producers

- Large wood pellet producers that primarily export pellets overseas (they may burn large amounts of biomass onsite for pellet drying)
- Smaller wood pellet producers that primarily sell their product in the US for heating fuel; also may burn biomass onsite for pellet drying.

Biofuels producers

- Biofuels manufacturers (that in addition to producing liquid biofuels may burn solid biomass for onsite heat and power)

Other users

- Chemical companies that use biomass as chemical feedstock; some may burn biomass onsite

Related concerns

- Companies that build biomass-burning boilers for heat and power
- Companies that sell renewable energy credits to the voluntary compliance market

Need for a new sectoral category: Bioenergy and Biomass Manufacturing

Companies or investors looking for SASB's disclosure standards on use of biomass for heat and power, or wood pellet manufacturing, will likely turn first to the "Renewable Resources & Alternative Energy Sector, as did we. However, the sector does not contain a chapter on

bioenergy. Since SASB has generated the "Sustainable Industries Classification System" (SICS) that "*groups companies into industries based on shared sustainability risks and Opportunities*," there is no reason why a new SICS code could not be developed to accommodate those sections of the bioenergy industry most concerned with burning wood and other biomass for heat and power.

Disclosures SASB should require for companies involved in biomass or bioenergy

While a new category under SASB would be ideal, use of biomass and bioenergy is sufficiently widespread that we believe *all* companies and sectors biomass for fuel or feedstock above a *de minimis* amount, and *especially any company that claims or implies environmental benefit from use of biomass*, should be required to make the following disclosures. To quote SASB itself regarding biomass[17]: "*the use of biomass is* ***not necessarily beneficial for the environment****; biomass production can cause significant ad****verse impacts such as deforestation, biodiversity loss, land depletion, and high pesticide use****. It may therefore not be prudent for the industry to use such feedstocks* ***without investigating how they are produced****."* (bold added).

We could not agree more. We therefore suggest the following minimum disclosures:

Quantitative disclosures

Total energy generation from biomass

The SASB standards already in some cases require companies to disclose total energy generated and the amount from biomass (e.g., the Pulp and Paper standard). This disclosure should be required for any sector where biomass energy is used. Additionally, the amount of energy generated in excess of what a company itself uses and is net metered through an electric utility should be a mandatory disclosure standard, not an optional one, as it is now for the Pulp and Paper standard. Some pulp and paper companies, and other wood-products companies, are running full-scale biomass power plants that feed electricity onto the grid – this is certainly material to investors.

Further, all companies should be required to disclose *all* energy generated from biomass. Currently the Pulp and Paper standard limits the "scope of renewable energy from biomass sources" disclosure to only certain types of fuel and excludes the fuels that are likely to have the worst environmental and health impacts. As discussed in more detail below, these omissions will contribute to misleading investors.

Amount and type of biomass burned or used as feedstock.

Companies should disclose the amount of biomass (in tons) from different categories of feedstock such as hardwood, softwood, energy crops, food crops, construction and demolition waste, municipal waste, black liquor (waste product from pulp and paper industry), sawmill residues, other industry residues. These different types of biomass can have different pollution impacts. For instance, construction and demolition waste can contain toxics such as arsenic from arsenic-treated wood that can become airborne after combustion. Different types of biomass also

[17] From the Basis of Conclusions document for the Chemicals sector.

have varying lifecycle carbon impacts. For instance, harvesting and burning trees for fuel that would otherwise continue growing and sequestering CO2 out of the atmosphere has a bigger and more long-lasting impact on net CO2 emissions than burning waste wood that is fated to decompose in any case.

Reporting the amount and types of fuels burned information is simple because most entities burning biomass already report the amount and types of fuels they burn to the Energy Information Administration, though the categories are fewer and more general than those listed above.

Biogenic emissions

SASB does acknowledge that "*direct greenhouse gases are produced by the combustion of fossil fuels **and** biomass*,"[18] but the guidance only requires companies to report Scope 1 emissions – that is, direct emissions from combustion of fossil fuels – excluding emissions from burning biomass for energy. However, since many companies emit far more biogenic carbon than Scope 1 carbon, this conceals the emissions of millions of tons of GHG emissions.

Reporting biogenic emissions is not difficult; emissions are the product of fuel use (which companies already report to the Energy Information Administration) multiplied by EPA's fuel-specific emission factors. As an example of this approach, EPA published a dataset of emissions from power plants, including biomass burners, as part of the Clean Power Plan documentation; PFPI has it posted at http://www.pfpi.net/wp-content/uploads/2016/09/EPAs-non-cogen-eGRID-data-for-2012.xlsx. SASB can easily specify a protocol for CO_2 reporting that relies on the data already reported to EPA and EIA, as it does for other kinds of reporting. Emissions from biomass combustion are also reported by EPA in national GHG accounting that is submitted under UNFCCC reporting protocols. Biogenic emissions are also reported under the Global Reporting Initiative.

Further, the GHG Protocol,[19] which SASB references for Scope I emissions, actually itself requires reporting of biogenic emissions, stating (p. 63) *"A public GHG emissions report that is in accordance with the GHG Protocol Corporate Standard shall include the following information: …Emissions data for direct CO2 emissions from biologically sequestered carbon (e.g., CO2 from burning biomass/biofuels)."*

Lifecycle emissions balance (if calculated)

Lifecycle emissions are calculated as all the emissions associated with manufacturing, transporting, and consuming a fuel. This metric is required for biofuel companies, which in any

[18] Pulp and Paper sector redline, p. 110.

[19] Scope 1 emissions are defined by the World Resources Institute and the World Business Council on Sustainable Development (WRI/WBCSD) in The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition, March 2004

case calculate emissions for the Renewable Fuel Standard. The metric is not federally required for solid biomass burned for heat and energy, but some companies may calculate it anyway. It should be a recommended disclosure; where it is disclosed, the rationale and method of calculation should also be disclosed.

The amount of subsidies received though government programs.

SASB requires disclosure of subsidies by companies manufacturing liquid biofuels; reporting of subsidies, tax incentives, government grants, etc., which can sum to tens of millions of dollars for any given company, should also be required for all companies making biomass fuels or generating biomass energy. Receipt of, or benefit from, subsidies from overseas should also be reported (for instance in the case of wood pellet manufacturing companies, which depend on continued receipt of subsidies by the companies in the UK and EU that purchase and burn their product).

Sustainability certification

SASB requires companies manufacturing liquid biofuels to disclose the percentage of product third-party certified to an environmental sustainability standard. This should also be required of companies manufacturing solid biomass or burning solid biomass. As is required under SASB's standard for the forestry sector, where companies are required to disclose the percentage of their product that is certified to have been grown on lands certified as managed under forestry programs like the Forest Stewardship Council, companies should disclose what percentage of woody biomass fuels come from certified lands.

Definitional disclosures

Stack emissions versus net lifecycle emissions

If companies claim that biomass has "low" or "zero" emissions, this does not reflect physical reality of what is coming out the stack. Instead, it is an implied estimate of "lifecycle" emissions based on the idea that stack emissions are offset by new growth of crops or trees, or some other accounting assumption. Companies claiming that biomass has "low" or "zero" emissions, or that it is "carbon neutral," should be required to disclose the difference between direct stack emissions and their calculated lifecycle emissions, and explain the system they use to estimate lifecycle emissions.

Sustainable forestry lacks a single definition

In at least one case (Pulp and Paper standard) SASB recommends, but does not require, that companies disclose "*Sourcing risks, including reputational risks associated with a lack of transparency about whether purchased biomass was sustainably harvested*" (p. 118 redline). This implies that SASB believes the concept of "sustainable harvesting" means something and is material to investors. However, there is no single definition of "sustainable" forestry management. In fact, such terms can be extremely misleading to investors. SASB should require companies to clearly define what they mean by "sustainably harvested" products and related terms, both for wood harvested to make products, and wood harvested to burn for energy.

Claims of bioenergy "carbon neutrality" are based on assumptions

SASB should require that companies claiming carbon neutrality or "low carbon" status for biomass should explain that such claims rely on assuming that forests or crops will grow back eventually to offset carbon emissions, or some other similar assumption. Such processes are uncertain and not necessarily under control of the company making the claim. There is a close analogy to the requirements that the FTC has for claims about carbon offsets. An offset is some means of sequestering CO2 (such as planting trees) or avoiding emissions of CO2 (such as refraining from harvesting forests). Claims that bioenergy has "low" or "zero" carbon emissions are essentially claims that the emissions (which are a physical fact) are offset at some other place and some other time. The FTC "Green Guides" place clear side rails on what can be claimed about offsets: since most consumers believe purchasing an offset will result in relatively immediate emissions reductions,[20] the Guides advise marketers to disclose if emission reductions underlying a carbon offset will not actually occur for two years or more after the date of purchase.[21] Similarly, SASB should require companies claiming that bioenergy emissions are somehow offset to explain the mechanism and time-scale for such offsetting.

Risk disclosures

Risk disclosures are required by the SEC. The following types of risk are common for companies manufacturing or burning biomass fuels.

Climate change legislation

Companies should disclose risks from existing or pending climate change-related legislation or regulation, particularly those related to emerging forest and emissions impacts of bioenergy, such as the loss of subsidies and special tax treatment, loss of preferential treatment and permitting exemptions.

Dependence on subsidies

In addition to disclosing the amount of subsidies received, companies should discuss the potential reduction in value of various renewable and "green" energy subsidies and tax credits from which companies currently benefit, which are in some cases are dependent on the continuing exemption of stack CO2 emissions from inclusion in certain accounting protocols or carbon trading or tax programs.

[20] Based on this research, the Commission concluded that it would be "deceptive to misrepresent that a carbon offset represents emission reductions that have already occurred, or will occur in the near future if, in fact, they will occur at a significantly later date." Green Guides § 260.5, Carbon Offsets. https://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-issues-revised-green-guides/greenguides.pdf

[21] If a marketer, however, has evidence that emission reductions occurring at a significantly later date do not deceive consumers (e.g., that timing of emission reductions is immaterial to consumers), then the recommended disclosure is not necessary.

Consumer demand for zero-emissions energy

Companies should discuss the risk of decreased consumer demand for energy that produces significant greenhouse gas emissions or services, compared to zero-emissions technologies like solar and wind energy.

Reputational damage due to GHG emissions and forest impacts

Companies should discuss risks arising from reputational damage related to climate change, such as possible negative public reaction as the public comes to understand the speculative and potentially misleading presentation of the environmental and greenhouse gas benefits of bioenergy investments.

Sustainability criteria requirements

As SASB requires for liquid biofuels, companies should discuss constraints created by regulation, such as compliance with sustainability criteria in the U.S. and the Renewable Energy Directive in the E.U.; potential regulatory limits on the types of land where feedstock can be grown; potential limits on what qualifies as renewable biomass; potential for reduction or loss of public or political support for bioenergy mandates due to environmental impacts of feedstock production; and resistance to the use of genetically modified organisms (GMOs).

Environmental impacts of feedstock production

Companies should be required to discuss their strategy for managing risks associated with environmental impacts of feedstock production.

Additional ways SASB could improve transparency around bioenergy impacts

The following comments are elaborations on the themes identified above.

SASB adds to confusion on treatment of biomass as "zero carbon"

In the Pulp and Paper redline, the following explanation has been recently added for the treatment of biogenic carbon (p. 111): "*Carbon dioxide (CO2) emissions from the use of biomass generally are not covered by regulatory regimes given that biomass is typically viewed in the context of its overall carbon cycle (i.e., as a balance between landscape forest carbon growth and harvesting/use).*"

It really is not the case that biomass is "typically viewed" in any particular way, and by including this explanation, SASB is muddying the waters. In fact, there is almost never any actual reason given for treatment of biomass energy as having zero emissions. To say that biomass is "typically viewed" in a certain way is similar to claiming that fossil-fired CO_2 emissions should not be reported, because fossil fuel companies "typically view" climate change as a hoax. In other words, it privileges the viewpoint of companies over that of scientists, who do acknowledge the long-lasting net impacts of CO_2 emissions from bioenergy (for an example, see

https://apps-scf-cfs.rncan.gc.ca/calc/en/bioenergy-calculator). The EPA and EIA *do* currently track and report CO_2 emissions from bioenergy, and it is misleading to imply that they do not.

The definition of "Renewable" resources is misleading

In the section on Containers and Packaging, renewable energy is defined as (p. 142 redline) "*energy from sources that are replenished at a rate greater than or equal to their rate of depletion, consistent with EPA definitions, such as geothermal, wind, solar, hydro, and biomass*."

In fact, much of the biomass burned for electricity and heat generation does not meet this definition. Any time trees are used as a fuel source, the time taken to burn the wood is short, while the time taken to regrowth the wood and resequester an equivalent amount of carbon is years to several decades. Only certain fuels, such as those derived from annual crops, can reasonably be treated as being replenished on a short-term basis.

The description is thus misleading to investors, because it implies that companies manage their sources of materials feedstock and biomass fuels so that the depletion rate does not exceed the growth rate, which is usually not the case.

The definition is internally inconsistent, as well. In the Packaging/Containers guidance, at p. 151 of redline, renewable resources are defined as "*those that are composed of biomass from a **living** source and are replenished at a rate equal to or greater than the rate of depletion (bold added)*." However, two lines later in the definition, it defines biomass as material of biological origin, including "*organic material (both **living and dead***)"(bold added).

The definition of biomass as a renewable resource is too broad

The wider definition of biomass used as raw materials under the Containers & Packaging standard (p. 151 redline) makes it clear that nearly anything could be included. Biomass is defined as "*a material of biological origin, excluding materials embedded in geological formations or transformed to fossilized material and excluding peat. This includes organic material (both living and dead) from above and below ground, such as trees, crops, grasses, tree litter, algae, animals, and waste of biological origin (e.g., manure), consistent with the Global Protocol on Packaging Sustainability 2.0.*" There is nothing to prevent 100-year-old oak trees, or even old-growth redwood trees from being used as feedstock, under that definition. This is one reason why it is so important that companies be required to disclose the amounts and kinds of biomass they use for feedstocks and fuels.

Air emissions reporting is inadequate and inconsistent

Why, given the requirement for reporting of air quality violations in the Biofuels sector, which requires disclosure of "*non-compliance with air quality permits, standards, and regulations*", even if those incidents do not result in an enforcement action, has SASB exempted the Containers/Packaging sector from any air violation reporting at all? If the sector emits enough air pollution to be required to report on its emissions, then it should also be required to report on emissions violations. The reporting of emissions violations should be standardized for all sectors

with point sources. Companies are required by EPA and the states to track and report emissions problems, thus it is not difficult for companies to assemble and report these data. The Biofuels sector standard is fairly stringent and should be applied to all sectors with point sources:

Violations, regardless of their measurement methodology or frequency, shall be disclosed. These include:

• *For continuous emissions, limitations, standards, and prohibitions that are generally expressed as maximum daily, weekly, and monthly averages.*

• *For non-continuous emissions, limitations that are generally expressed in terms of frequency, total mass, maximum rate of discharge, and mass or concentrations of specified pollutants.*

• *False or inaccurate reporting.*

• *Failure to obtain permits.*

SASB also seems confused on how particulate matter (PM) and VOCs are reported. While the Biofuels standard requires companies to report emissions of PM as "*as the sum of PM10 and PM2.5, or all particulates less than 10 micrometers in diameter*," (p. 13 of redline) in contrast, in both the Containers/Packaging and Pulp/Paper sectors, SASB is allowing companies to report particulate matter as filterable PM, only.

Companies should be required to report both condensable and filterable PM, and to state if they do not have data on condensable PM. In fact, a large fraction of PM2.5, acknowledged to be the size-class most harmful to health, is condensable PM. EPA requires companies to test and track both fractions, and states should be coming into compliance with these rules to help achieve compliance with EPA's National Ambient Air Quality Standard (NAAQS) for PM2.5. Companies are accustomed to reporting both filterable and condensable PM to EPA's National Emissions Inventory (NEI). If some companies report both condensable and filterable PM, and some report only filterable PM, then this will make comparing among companies more difficult.

Regarding VOCs, at p. 140 of the C/P redline, it states, "Registrants may report VOC emissions as carbon, as permitted by regional or national regulations." We have never seen states or the EPA accept reporting of VOCs as "carbon" – VOCs are reported as VOCs. In any case a company would need to determine VOCs as VOCs in order to derive the carbon content, if reporting were actually done this way. SASB should standardize air pollution to make company data comparable and should stop enabling companies to make end-runs around air reporting requirements already in place under EPA and the states.

Also regarding air quality, unnecessary edits have been made to descriptive text. In the description of the Containers/Packaging sector, valid points about the environmental impact of the sector have been removed, while industry-praising phrases have been added, such as the statement that emissions "*have declined substantially in recent years*." This claim is repeated at page 114 of the Pulp/Paper standard. This information lacks context and scale (how much of the "decline" is due to a downturn in the industry since 2008?), making it irrelevant and biased.

Review of sectoral disclosure standards

We evaluated some, but not all, of the sector-level standards. In addition to generally lacking the disclosures about biomass and bioenergy that we have recommended above, we identified a number of places where the standards fall short, meaning that if they are enacted as written, they will allow and even encourage companies to publish misleading information on use of biomass for energy and feedstocks.

If a standard is not mentioned in the following comments, this does not mean it is free of the kinds of problems we have identified. We have also provided some comments on other, non-biomass related matters.

Resource Transformation: Chemicals

This sector should be subject to the disclosures we identified above. Additionally:

SASB must restore "Feedstock" to the "Energy and Feedstock Management" metric

The redline draft has struck "Feedstock" from "Energy and Feedstock Management." However, this deletion is not discussed in the "Basis for Conclusions" (BOC) document. Presumably, the explanation about the removal of the sub-metric, "Percentage of raw materials from renewable resources" is offered as sufficient explanation for the deletion of *any* reference to feedstocks.

Neither the sub-metric "Percentage of raw materials from renewable resources," nor the word "Feedstock" from "Energy and Feedstock Management" should be removed. The reasoning behind the removal of these metrics does not make sense.

First, since percentages must sum to 100%, by implication, when a company reports that a certain percentage of feedstock comes from renewable sources, this statement means that 100% minus that percentage comes from non-renewable sources, i.e., fossil fuels. Since fossil fuels provide a large share of feedstocks, information on the sources and costs of feedstock is material to investors for the same reason that information on sources and costs of energy is material. As the redline draft states, (p. 18), "Chemical ~~companies are highly reliant on electrical energy and hydrocarbon feedstocks as inputs for value creation, which account for manufacturing is typically energy-intensive, and energy can represent~~ a significant ~~proportion~~ share of ~~total~~ production costs."

In fact, the BOC document seems to agree, because even though the metric discloses the percentage of renewables, it's described as a metric for risk from use of *non*-renewables:

"*Quantitative metric RT0101-06 provides disclosure on the types of raw materials (feedstocks) that are an indicator of operating risk from sourcing of non-renewable feedstocks. A large share of feedstocks in the industry are in the form of fossil energy such as natural gas*."

The BOC presents a variety of somewhat self-contradictory reasons for abolishing this reporting metric.

1. First, the BOC states the submetric of "Percentage of raw materials from renewable resources," isn't useful, because only a small percentage of feedstocks come from renewable sources (p. 13 BOC):

   "*However, the share of feedstock from renewable resources would have to substantially affect a company's overall raw materials profile to be decision-useful and relevant to companies and investors. This does not appear to be the case across the industry, and therefore, disclosure on metric RT0101-06 would likely not be applicable to companies or useful for investors*."

   This implies that a factor must be uniformly the case "across the industry" to be material to investors. However, it is the differences among companies that guide the decision to invest in one over the other, making this factor material to investment decisions for sustainability-minded investors.

   The "supporting analysis" section of the BOC is nearly incoherent in its reasoning for eliminating the reporting of the use of renewable feedstocks. It admits that "*the use of biomass or other renewable feedstocks in chemicals production is an* ***important consideration*** *for the industry in the long-term, as fossil fuel supplies are susceptible to price volatility, and regulatory measures could affect the supply to fossil feedstocks*." (p. 13 BOC), which sounds material to investors;

2. But it then states that natural gas is so abundant, "pressure" to use renewables as feedstock is uncertain (as if the only reason a company would use renewable feedstocks was if supplies of fossil fuels were limited): "*However, recent discoveries and improvements in technology have made vast reserves of natural gas available in the U.S. and other regions at low cost, while regulatory changes are likely to be gradual, making it unclear if the industry will face increasing pressure from feedstock supply*."

3. The BOC then complains that it is difficult to determine the use of renewable feedstocks at an "industry level" (but isn't this a company-level reporting standard?) – thus it's unlikely that renewable feedstocks make a meaningful contribution. Further, biomass feedstocks are hard to source: "*The share of renewable feedstocks as a percentage of total feedstock consumed is difficult to determine at an industry level. Some companies are using limited amounts of biomass as feedstock for certain products; one major company reports that approximately five percent of feedstock in 2015 was biomass, according to the company's website. Companies involved in basic chemical production rely heavily on natural gas and its derivatives as inputs and use little to no biomass. It is unlikely at this time that the chemicals industry will be able to source sufficient amounts of renewable feedstocks to make a meaningful contribution to total feedstock use*."

4. Finally, the BOC states that use of renewable feedstocks might actually be damaging – and this is offered as a justification for ***not*** reporting on its use: "*Additionally, the use of biomass is* ***not necessarily beneficial for the environment****; biomass production can cause significant ad****verse impacts such as deforestation, biodiversity loss, land depletion, and high pesticide use****. It may therefore not be prudent for the industry to use such feedstocks* ***without investigating how they are produced****. Therefore, the metric does*

*not provide an accurate or unbiased representation of company performance with respect to feedstock management. The remaining quantitative metric will provide relevant, decision-useful information about energy consumption and energy mix" (*bold added).

The incoherence of the "logical" leap from saying "companies might not want to use feedstocks without determining how they're produced" – to, "*therefore,* the metric of reporting use of renewables feedstock isn't useful" – provides a window into the degree to which the SASB process is itself dominated by the industries it wishes to influence. In fact, the admission that use of renewable resources as feedstock "*can cause significant adverse impacts such as deforestation, biodiversity loss, land depletion, and high pesticide use*" – and could therefore could entail significant regulatory and reputational risk – demonstrates another reason why this metric is so material to investors.

Finally, the presentation of the metric showing the proportion of feedstock from renewables as a way to provide disclosure on the risks of overreliance on non-renewable feedstocks is incomplete, because it ignores the *opportunities* of using renewable feedstocks, given the public appetite for companies that are "green" and "sustainable." For instance, describing green chemistry as the "future," the American Chemistry Society[22] (ACCS) lists *Use of Renewable Feedstocks* ("A raw material or feedstock should be renewable rather than depleting whenever technically and economically practicable") as number 7 of 12 principles of green chemistry.[23]

Renewable Resources and Alternative Energy: Biofuels

This sector should be subject to the disclosures we identified above. Additionally:

<u>The metric "Product Formulation & Impacts on Food Markets" should be restored</u>

Removal of this metric is harmful to the integrity of the standard for several reasons.

1. The types of feedstocks used in biofuels production is critical to determining net greenhouse gas impacts. For example, most assessments find that corn ethanol reduces GHG emissions by a little bit compared to petroleum, but palm oil biodiesel actually has higher GHG emissions than petroleum.
2. Different feedstocks also have varying other environmental impacts because they can cause different kinds of land use change. Palm oil is the most strongly linked to deforestation, and because it is particularly associated with tropical deforestation, it also has a larger biodiversity impact than other feedstocks. Investors who care about GHG emissions and environmental impacts would find this information extremely material.
3. As part of risk assessment, the Biofuels standard states (p. 30 of redline) "*The registrant shall discuss its approach to managing risks and/or opportunities associated with feedstock production, including constraints created by regulation, and limits on availability and price*." A quantitative breakdown of the amounts and types of feedstock

[22] https://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry.html

[23] https://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html

are integral to such an assessment. Further, it is material to investors to know if a company is using feedstocks for which there are other competing uses. For instance, as the cellulosic biofuels industry evolves, it could rely more on forest wood, which has many other uses (e.g., pulp and biomass for power generation) and significant net lifecycle greenhouse gas impacts. Companies should be compelled to disclose use of such feedstocks.

4. Competition with food crops and impacts on food markets is *the* sustainability issue most associated with biofuels. The "note" to the metric that has also been struck out (page 11 of the redline) explains: "*Note to RR0101-06—The registrant shall discuss risks associated with the use of food crop feedstocks and feedstocks grown on arable lands*." Nothing could really be more material in a "sustainability" standard, and yet this requirement has been removed.

Reporting for this metric is simple because companies obviously track this information. It is extremely serious that SASB has been persuaded to remove this metric. It calls into question the integrity of the whole standard, if SASB can be convinced that such basic information is not material. The Basis of Conclusions (BOC) document (page 10) shows the degradation in SASB's resolve. Initially, it states, the metric was included because "*Importantly, the existing U.S. Renewable Fuel Standard (RFS) has built-in provisions to gradually shift biofuels production from corn and soy feedstocks to so-called cellulosic feedstocks, which include crop waste, woody biomass, and algae, among other non-crops. This regulatory stipulation was the foundation of the SASB's initial view that the topic was reasonably likely to have material impacts on industry firms*." This reasoning makes sense, but SASB was persuaded to abandon it. We will not recapitulate the rationale for removing the metric, which starts on page 10 of the Renewable Resources "Basis for Conclusions" document; in short, it is nearly incoherent.

Air emissions reporting should include emissions from using the biofuel product

The accounting metrics for air emissions from biofuels only include emissions from manufacturing the fuel, but not using it. Obviously, if information on manufacturing emissions is material to an investor, so is information on emissions when the product is used. The standard should be rewritten to include greenhouse gas and conventional pollutant emissions from product use to adhere to SASB's principle of "completeness."

Renewable Resources and Alternative Energy: Pulp and Paper

This sector should be subject to the disclosures we identified above. Additionally:

Renewable energy disclosure should include all biomass burned for energy

Currently, the redline (p. 117) states,

"For the purposes of this disclosure, the scope of renewable energy from biomass sources is limited to the following:

Energy from biomass sources that meets at least one of the following criteria:

- *Certification to a third-party standard (e.g., Forest Stewardship Council, Sustainable Forest Initiative, Programme for the Endorsement of Forest Certification, or American Tree Farm System);*
- *Classification as an "eligible renewable" according to the Green-e Energy National Standard Version 2.5 (2014); or*
- *Eligibility for a state Renewable Portfolio Standard."*

We are concerned that this standard would allow companies to hide from investors the most toxic fuels the companies burn. For instance, the "Green-e" standard[24] excludes chemically treated wood, which includes copper-chromium-arsenate and lead paint; and railroad ties and utility poles (which are treated with creosote and sometimes pentachlorophenol, a banned pesticide). Telling companies that they only have to report to investors the materials that *do* meet the "Green-e" standard gives them permission to *not* report contaminated wastes they may be burning.

Further, this standard lets companies off the hook for reporting on forest wood they are burning that is *not* certified to a sustainability standard. This standard could lead to disclosures that are substantially incomplete and, therefore, misleading.

We noted that the definition of bioenergy subject to disclosure in the Containers & Packaging standard (p. 144 redline) suffers from the same problem. It states, "For the purposes of this disclosure, the scope of renewable energy from hydro and biomass sources is limited to the following:" then lists "*materials certified to a third-party standard (e.g., Forest Stewardship Council, Sustainable Forest Initiative, Programme for the Endorsement of Forest Certification, or American Tree Farm System), materials considered "eligible renewables" according to the Green-e Energy National Standard Version 2.5 (2014), or materials that are eligible for a state Renewable Portfolio Standard*."

Thus companies burning garbage, tires, and contaminated wood would probably not be required to disclose that fact; nor would companies burning wood harvested from old-growth forests.

<u>The "Total Wood Fiber Sourced" activity metric must include biomass burned for energy</u>

If investors are interested in the *sourcing* of materials, and the presumed impacts of such sourcing, then the ultimate disposition of those materials - whether they are made into a long-lived product, or burned for energy - is irrelevant. However, the activity metric for Pulp and Paper of "Total wood fiber sourced" explicitly excludes biomass reporting on biomass that is burned. As noted at page 108 of the redline: "*19 Note to RR0202-C—The scope of wood-fiber-based raw materials includes all inputs that are processed to be sold as a finished good, including recycled raw materials, virgin raw materials, and goods that will be consumed directly in the production process and* ***excluding biomass for energy use****"* (bold added).

[24] https://www.green-e.org/docs/energy/Green-eEnergyNationalStandardv2.7REDLINE.pdf

This exclusion is unacceptable, particularly as pulp and paper mills may increasingly burn wood to collect subsidies for electricity they sell to the grid. Figure 1 shows the impact that a single facility can have. The data are for black liquor and wood burned for energy at the WestRock (formerly MeadWestvaco) bleached sulfate paperboard mill in Covington, Virginia. After a new wood-burning boiler was installed, wood burning peaked in 2015 at over one million tons, up over 700% from the level in 2012.[25] Under current SASB metrics, none of the biomass burned for energy would be reported, nor would the 2.69 million tons of CO_2 that was emitted from biomass combustion from that one plant. By comparison, this is more CO_2 than was emitted by the entire electric power sector in South Dakota in 2015 (2.14 million tons).[26]

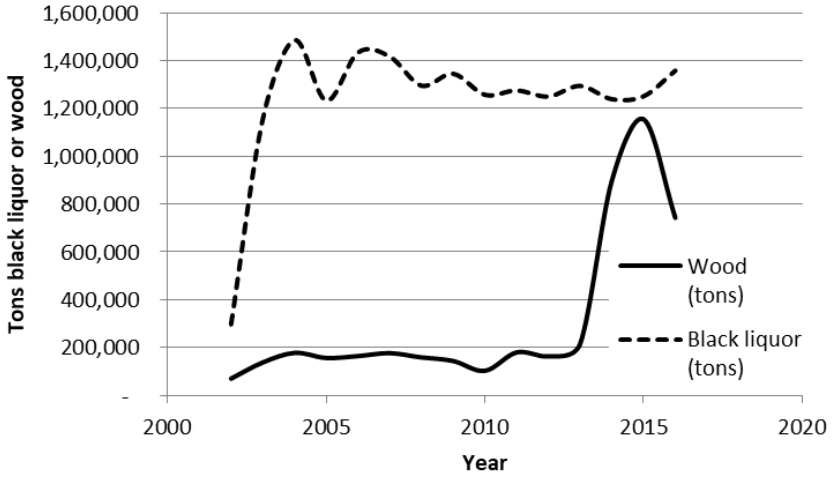

Figure 1. Black liquor and wood burned for energy at the Covington mill in Virginia. See text above for explanation.

Resource Transformation: Containers & Packaging

This sector should be subject to the disclosures we identified above. Additionally:

Air pollution violations should be a required disclosure metric

The introduction to the Containers/Packaging sector discussion states, "*emissions of air pollutants in the Containers & Packaging industry typically stem from the combustion of fuels and the processing of raw materials*." As discussed above, it does not make sense that this sector is not required to report emissions violations. If there are point sources in this sector that emit pollutants, they have air permits, and if they violate these air permits, they should be required to disclose this like the other point source sectors.

[25] U.S. Department of Energy, Energy Information Administration. EIA-923 Monthly Generation and Fuel Consumption Time Series Files, 2001 - 2016. Sources: EIA-923 and EIA-860 Reports. U.S. Department of Energy.

[26] U.S. Department of Energy, Energy Information Administration. U.S. Electric Power Industry Estimated Emissions by State (EIA-767, EIA-906, EIA-920, and EIA-923) (https://www.eia.gov/electricity/data/state/)

Accounting metrics for Materials Sourcing should be rewritten

Metric TA07-26-01, "Total wood fiber procured, percentage from certified sources," requires companies to account for sourcing of materials that are processed to be sold as a finished good, "including" "*goods that will be consumed directly in the production process*." This would seem to include biomass that is burned for energy during the manufacturing process, but this should be stated explicitly. If inclusion of biomass is not implied, then this should be rectified. The point of certification is to protect the environment, and the protection of the environment is equally important whether wood is turned into a product, or burned for energy.

Infrastructure (Utilities)

This sector should be subject to all the disclosures we identified above. Additionally:

Biogenic emissions should be counted in "power deliveries net of power purchases and sales"

SASB apparently excludes biogenic emissions when it requires utilities to separately disclose their emissions for "power deliveries net of power purchases and sales."[27] According to the commentary in the "Basis for Conclusions," SASB added this section to provide investors with a picture of emissions from electricity delivered to customers rather than mixing together emissions from energy delivered with emissions from power purchased and sold.[28] The methodology SASB uses only reports anthropogenic emissions, not biogenic emissions.[29] A power company could be burning millions of tons of wood in its facilities, but not be required to report these emissions. Biogenic emissions reporting should be required in all cases.

Utilities should disclose when climate regulations do not count bioenergy emissions

SASB requires companies to *"disclose the percentage of its emissions that are covered under a regulatory program that is intended to limit or reduce GHG emissions, such as the European Union Emissions Trading Scheme (E.U. ETS), Quebec Cap-and-Trade (Draft Bill 42 of 2009), California Cap-and-Trade (California Global Warming Solutions Act), or other regulatory programs."*[30] Such regimes often do not count bioenergy emissions. Therefore, if utilities do not have to report their bioenergy emissions under the SASB standards and these regulatory regimes do not count bioenergy emissions, companies could report that the regulatory regimes cover a higher percentage of the company's actual emissions than the regimes, in fact, cover,

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[27] Sustainability Accounting Standards Board. Infrastructure, Electric Utilities & Power Generators, at 17. Available at https://www.sasb.org/exposure-drafts/.

[28] Sustainability Accounting Standards Board. Proposed Changes to Provisional Standards, Basis for Conclusions, Infrastructure Sector, at 10. Available at https://www.sasb.org/exposure-drafts/.

[29] Here, SASB requires reporting "according to the methodology established by the numerator in EPS Metric D-3 contained in the Electric Power Sector Protocol for the Voluntary Reporting Program, June 2009, Version 1.0, provided by The Climate Registry, including 2010 Updates and Clarifications." Page 102 of this separate document shows that the EPS Metric D-3 designated for "retail electric deliveries" is "MT CO2 / MWh" or megatons of carbon dioxide divided by megawatt hours (Climate Registry. Electric Power Sector Protocol for the Voluntary Reporting Program, Annex I to the General Reporting Protocol, at 102. Available at https://www.theclimateregistry.org/wp-content/uploads/2014/12/Electric-Power-Sector-Protocol_v1.0.pdf.) Metric D-3 is defined as "metric tons of *anthropogenic* CO2 emissions from electricity generation and purchases for the portion of electricity sold as a special power product (italics added)."

[30] Sustainability Accounting Standards Board. Infrastructure, Electric Utilities & Power Generators, at 18. Available at https://www.sasb.org/exposure-drafts/.

which is misleading to investors. Utilities should disclose that these regimes do not count bioenergy emissions and, as a result, what percentage of the utilities' actual emissions are covered by the regimes.

Utilities should disclose changes, as well as increases, in renewable portfolios

SASB calls for companies to state *"whether regulations require future increases to the registrant's renewable energy portfolio"*[31] but it should instead require disclosure of "increases and/*or changes*" to the portfolio. That's because Massachusetts and Washington, DC have recently removed commercial scale bioenergy from their renewable portfolio standards. A company required to meet these standards might have to change its mix of renewable energy to use less bioenergy and more solar, for example, without changing the total amount of renewable energy required to be used.

SASB should restore section on projects requiring environmental or social modification

SASB wants to delete a section requiring utilities to disclose "the number of projects requiring modifications associated with environmental or social impacts."[32] However, this information is material to investors interested in investing in sustainable companies. SASB's explanation for the change is that "*the nature of the industry's new project development is generally not invasive (or significantly less invasive) to communities, and does not typically generate substantial negative sustainability-related impacts on communities*." SASB indicates that this conclusion is made "excluding natural gas" and states that capital spending in the utility industry "*is primarily directed toward projects that enable a cleaner, smarter, more resilient and reliable grid*."[33] This conclusion and the exclusion of natural gas seems misleading in light of current construction of "a new generation of American mega-pipelines built to transport our dizzying windfall of natural gas" in the words of the Washington Post, much of which is being used to replace coal in electricity generation.[34] Many, if not most, of these pipelines have sparked fierce opposition by communities concerned about the environmental impacts. One such pipeline is the Atlantic Coast Pipeline proposed by Virginia's major utility, Dominion, "that would carry natural gas to southeastern power plants that are phasing out coal," the Post reported. Moreover, regulators required Dominion to modify the pipeline – a fact that SASB says need not be disclosed. "Dominion's proposal allowed affected parties such as the U.S. Forest Service to perform in-depth analyses of the exact path," the Post reported. "Within months the Forest Service twice forced Dominion to change the route in both the Monongahela and George Washington national forests to avoid endangered salamander habitats."[35] Regarding siting of bioenergy facilities in particular, citizens from Hawaii to Maine have complained about environmental impacts of bioenergy plants, and regulators have intervened in some cases to require modifications in how

[31] Id. at 20.

[32] Id. at 35.

[33] Sustainability Accounting Standards Board. Proposed Changes to Provisional Standards, Basis for Conclusions, Infrastructure Sector, at 10. Available at https://www.sasb.org/exposure-drafts/.

[34] Brad Horn. A Country's Need for Natural Gas, A Woman's Beloved Farmland, A Pipeline that Tore a County Apart. Washington Post (June 9, 2016). Available at http://www.washingtonpost.com/sf/style/2016/06/09/one-womans-fight-to-save-her-land-from-a-pipeline-that-tore-a-region-apart/?utm_term=.b0ea8d51438e.

[35] Id.

such facilities operate.[36] When bioenergy plants are proposed or built, utilities will likely face pressure to modify these facilities to reduce impacts. In some cases, they may have to make modifications. Investors interested in sustainability would likely find such information material.

SASB should preserve a section on engaging communities

Similarly, SASB has deleted a section requiring companies to disclose "*its process for engaging communities in which it operates to identify concerns regarding the environmental and social impacts associated with its existing or proposed projects*."[37] It would seem that investors interested in sustainability would be more likely to invest in companies that have a robust and constructive process for considering community concerns, particularly in light of significant current opposition to natural gas transmission lines and concern about local bioenergy impacts. SASB should keep this disclosure requirement.

SASB should preserve and expand a section on Management of the Legal & Regulatory Environment

SASB has also deleted a section on Management of the Legal & Regulatory Environment that would require disclosures of the steps companies take to prevent ethical violations resulting from interactions with utility commissioners; the fines, settlements and allegations of violations related to interactions with utility commissioners; and efforts to manage risks and opportunities presented by the political and regulatory environment.[38] In a companion document, SASB justifies this removal because "*the broadly defined topic of Management of the Legal & Regulatory Environment does not have an adequate body of industry-specific evidence of financial impact*."[39]

Removing this section is a mistake. First, even if there is little "*industry-specific* evidence of financial impact," unethical activities, regulatory enforcement, and the political and regulatory environment can have a significant impact on companies and investors' decisions to invest in them. Perhaps the highest-profile recent case in the environmental world involved the discovery of Volkswagen's fraudulent emissions tests that led to regulatory action, damaging the company's reputation and sinking its stock price.[40] It is highly doubtful that the electricity sector would be insulated from such unethical actions, and it is highly likely that investors would want to know what steps companies are taking to avoid unethical decisions. At least one major utility has acknowledged that the regulatory environment has an impact on its business related to bioenergy. In 2012, Dominion wrote to EPA that "*the value of future biomass power facilities could be diminished while not actually reducing overall carbon emissions if EPA implements a policy which relies on an accounting framework which devalues the 'carbon neutrality' of*

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[36] See, e.g., Partnership for Policy Integrity. Trees, Trash, and Toxics. Available at http://www.pfpi.net/wp-content/uploads/2014/04/PFPI-Biomass-is-the-New-Coal-April-2-2014.pdf.

[37] Id. at 37.

[38] Sustainability Accounting Standards Board. Infrastructure, Electric Utilities & Power Generators, at 53-57. Available at https://www.sasb.org/exposure-drafts/.

[39] Sustainability Accounting Standards Board. Proposed Changes to Provisional Standards, Basis for Conclusions, Infrastructure Sector, at 27. Available at https://www.sasb.org/exposure-drafts/.

[40] Kate Gibson. Volkswagen's Stock is a Car Wreck. CBS News (September 21, 2015).

biogenic CO_2 emissions; particularly that of waste wood."[41] It is likely that other utilities have stated that regulations – whether on bioenergy or other issues – could have an impact on their businesses. Investors would likely consider as material information about steps companies are taking to address environmental and socially-related regulatory matters. SASB should restore this section and should expand the required disclosures for ethical violations and fines and settlements beyond those related to interactions with utility commissioners. EPA, for example, can issue fines for utilities and negotiate settlements with such businesses. Other regulators may be able to do the same.[42] These regulatory actions could have material impacts on businesses.

[41] Pamela F. Faggert, Dominion Resources Services, Inc. Comments to the Science Advisory Board biogenic carbon emissions panel on its draft advisory report regarding EPA's accounting framework for biogenic CO2 emissions from stationary sources. March 16, 2012.

[42] See, e.g., U.S. Environmental Protection Agency, Enforcement, American Electric Power Service Corporation (October 9, 2007). Available at https://www.epa.gov/enforcement/american-electric-power-service-corporation.