



June 17, 2022

Vanessa A. Countryman  
Secretary  
Securities and Exchange Commission  
100 F Street NE  
Washington, DC 20549-1090

**RE: FILE NO. S7-10-22. COMMENTS OF CENTER FOR RESOURCE SOLUTIONS IN RESPONSE TO THE ENHANCEMENT AND STANDARDIZATION OF CLIMATE-RELATED DISCLOSURES FOR INVESTORS**

Dear Secretary Countryman,

Center for Resource Solutions (CRS) appreciates this opportunity to provide comment on the Securities and Exchange Commission’s (SEC’s) proposed amendments to its rules found in “The Enhancement and Standardization of Climate-Related Disclosures for Investors” published in the Federal Register (Vol. 87, No. 69) on April 11, 2022 (“Proposed Rules”).

**I. Introduction**

This document is organized into three sections. First, we provide a summary of our comments and recommendations. Second, we provide detailed comments, recommendations, and background, including subsections on general support for required climate-related disclosures, renewable energy certificates (RECs), and Scope 2 emissions accounting. Third, we provide responses to selected requests for comment and questions included in the Proposed Rules. We have also provided suggested revisions to Discussion/Preamble Sec. II.C.2 of the Proposed Rules in an appendix (Appendix A).

I.A. Index

I.	Introduction.....	1
I.A.	Index.....	1
I.B.	Introduction to Center for Resource Solutions.....	2
II.	Summary of Comments and Recommendations .....	3
II.A.	Comments.....	3

II.B.	Recommendations .....	3
III.	Detailed Comments, Recommendations, and Background .....	6
III.A.	General Support for Required Climate-related Disclosures.....	6
III.B.	Renewable Energy Certificates.....	7
III.B.1.	Recommendations Regarding Treatment of RECs in the Proposed Rules.....	7
III.B.2.	Background Regarding RECs .....	9
III.C.	Scope 2 Emissions Accounting.....	13
III.C.1.	Recommendations Regarding Scope 2 Emissions Accounting .....	14
III.C.2.	Background Regarding Market-based Scope 2 Emissions Accounting .....	16
III.C.2.a.	Footprints .....	16
III.C.2.b.	Scope 2.....	17
III.C.2.c.	Market-based Scope 2 .....	18
III.C.2.d.	RECs and Market-based Scope 2.....	18
III.C.2.e.	Market-based Data Considerations.....	19
III.C.2.f.	Substandard Alternatives to Market-based Scope 2.....	20
III.C.2.g.	Inadvisable Limitations on and Additional Criteria for Market-based Scope 2 .....	22
III.C.2.h.	Market Impact .....	24
III.D.	Independent Certification Programs .....	26
III.D.1.	Recommendations and Requests Regarding Treatment of Independent Certification Programs.....	26
III.D.2.	Background on the Green-e® Programs.....	26
III.D.2.a.	Renewable Energy Certification and the Green-e® Energy Program.....	26
III.D.2.b.	Carbon Offset Certification and the Green-e® Climate Program .....	28
IV.	Responses to Requests for Comment in the Proposed Rules.....	30
Appendix A.	CRS Suggested Edits to Discussion/Preamble Sec. II.C.2 .....	36

I.B. Introduction to Center for Resource Solutions

CRS is a 501(c)(3) nonprofit organization, established in 1997, that creates policy and market solutions to advance sustainable energy. CRS has been instrumental in the development of state, regional, and national renewable energy policies and markets through national and international programs that provide technical guidance to policymakers and regulators at different levels on renewable energy and greenhouse gas (GHG) policy design, accounting, tracking and verification, market interactions, and consumer protection. CRS also administers the Green-e® programs, the largest of which is Green-e® Energy, the leading independent certification for voluntary renewable electricity products in North America. More information about the Green-e® programs is provided in Sec. III.D.2 of these comments below. CRS recently launched the Clean Energy Accounting Project (CEAP), which develops standardized, stakeholder-reviewed clean energy and GHG emissions accounting guidance addressing outstanding questions in voluntary and regulatory markets.

## II. Summary of Comments and Recommendations

### II.A. Comments

- CRS generally supports the SEC's requirements for climate-related information, including climate-related risks, greenhouse gas emissions, and climate-related financial metrics, in registration statements, annual reports, and financial statements.
- The importance and role of renewable energy certificates (RECs) in climate disclosures is not limited to unbundled REC products and purchases by companies.
- RECs in general, and unbundled RECs in particular, are not equivalent to carbon offsets or used for net emissions accounting or net adjustments to footprints.
- RECs are essential to gross Scope 2 emissions accounting.
- The "market-based" method is the most accurate Scope 2 emissions calculation method for the United States.
- A market-based Scope 2 figure is the most relevant for investors and most appropriate for climate disclosures required by the SEC.

### II.B. Recommendations

1. Revise the proposed definition of a REC at Sec. 229.1500(n) as follows:

(n) *Renewable energy certificate* ("REC") means a tradable certificate representing property rights to all environmental and other nonpower attributes associated with the generation of a unit (e.g. one megawatt-hour) of electricity from a renewable resource on the electricity grid. These attributes include the fuel or resource type, location, greenhouse gas emissions, greenhouse gas emissions avoided or displaced on the grid, as well as all other impacts and benefits of the generation. RECs are required to demonstrate exclusive retail delivery and use of grid-connected renewable electricity, and associated generation attributes, for all procurement, transactions, and retail claims.

2. Remove references to RECs anywhere they are currently referenced as a strategy or solution specifically to achieve *net* emissions reductions and where it is either stated or implied that RECs are used for *net* adjustments to gross emissions.<sup>1</sup>

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<sup>1</sup> See, for example, pg. 21406 and 21431 of the Proposed Rules.

3. Sec. II.C.2 of the Preamble/Discussion (“Disclosure of Carbon Offsets and RECs if Used”) and Sec. 229.1506(d) should refer to all renewable electricity products, purchasing, generation, or procurement, as appropriate, and explain that REC ownership and retirement by or on behalf of the reporting company (or a group including the company) is required to substantiate all renewable electricity procurement and use that is disclosed. The SEC may additionally require companies to disclose the type of renewable electricity procurement, product or supply option purchased/used (e.g. unbundled RECs), but should not limit or set requirements for certain types of renewable electricity products/purchases/procurement. See our attached suggested revisions to Discussion/Preamble Sec. II.C.2 in Appendix A.

4. Revise proposed Sec. 229.1506 as follows:

(d) If carbon offsets have been purchased as a part of a registrant’s plan to achieve net greenhouse gas emissions targets or goals, disclose the amount of emissions reductions (in metric tons carbon dioxide-equivalent), a description and location of the carbon reduction project(s), the name of the seller of the offsets (if different), the vintage of the offsets (or the year in which the reductions occurred), the project verification standard organization and/or offset credit issuing body, any retail offset product or sales certification associated with the offset transaction, and the cost of the offsets.

[New subsection (e), all subsequent subsections renumbered:]

(e) If a registrant has procured renewable, nonemitting, or other specified electricity as a part of its plan to achieve climate-related targets or goals, disclose the total amount of generation used or procured (in megawatt-hours), the resource/fuel type by percentage of the total, the location of the generation, the age of the generating facilities (can be a range), the vintage of the generation (or the year in which the generation occurred) (can be a range), the procurement method (e.g. self-generation using onsite equipment, power purchase agreement, utility program/product/tariff, unbundled REC, etc.), the term length of the purchase agreement if applicable (e.g. one-time purchase, opt-in program enrollment, 10-year PPA, etc.), the name of the supplier, purchasing platform if applicable, and any certifications or standards (e.g. Green-e®) associated with the renewable energy product or transaction.

(1) All renewable or other specified electricity procurement disclosed per subsection (e) shall be substantiated with retirement of associated RECs, or generation/energy attribute certificates issued for non-renewable resource types, by or on behalf of the registrant (or a group including the registrant) for generating facilities that are registered in a regional renewable energy or generation attribute tracking system, or with contractual transfer and/or exclusive ownership and retention of all associated environmental attributes by the registrant for generating

facilities that are not registered in a regional renewable energy or generation attribute tracking system.

5. Revise proposed Sec. 229.1502(c) as follows:

[...] If applicable, include in this discussion the role that carbon offsets or renewable energy procurement plays in the registrant's climate-related business strategy.

6. Require a market-based accounting method for Scope 2 emissions calculations, which *inter alia* reflects ownership and retirements of RECs associated with any renewable electricity generation (and associated emissions) used for those calculations. Dual reporting of both a market-based and a location-based Scope 2 emissions figure can be permitted, consistent with the 2015 GHG Protocol Scope 2 Guidance. Revise Sec. 229.1504(e) as follows:

[New subsection (2), all subsequent subsections renumbered:]

(2) To calculate Scope 2 emissions, a registrant must use a market-based accounting method reflecting its electricity supply choices (or lack of choice) and the generation and associated attributes (e.g. emissions) that are contractually delivered to and consumed by the registrant. A registrant must multiply each unit (e.g. MWh) of electricity purchased/acquired and consumed from an entity outside of the organization or from owned/operated generation facilities where generation attributes (e.g. RECs) have been sold or transferred by the emissions factor (e.g. tons CO<sub>2</sub>e/MWh) associated with the contractual instrument (e.g. bundled PPA, unbundled REC) or data source (e.g. utility or supplier retail product or default resource mix, regional residual mix) that corresponds with that purchase, using the most precise and highest quality data available.

(i) Scope 2 emissions associated with purchased renewable electricity must be substantiated with retirement of associated RECs by or on behalf of the registrant (or a group including the registrant) for generating facilities that are registered in a regional renewable energy or generation attribute tracking system, or with contractual transfer and/or exclusive ownership and retention of all associated environmental attributes by the registrant for generating facilities that are not registered in a regional renewable energy or generation attribute tracking system. In regions where generation/energy attribute certificates are created for and issued to non-renewable resource types (or all generation), they, like RECs, must be retired by or on behalf of the registrant (or a group including the registrant) to verify its exclusive use of specified generation. If RECs or other attribute certificates are sold, registrants must calculate emissions associated with that consumption using emissions factors such as "replacement" certificates, a supplier's default product emission rate, or residual mix emissions rate.

(ii) RECs and contractual instruments must meet general quality criteria, including tracking and retirement of attributes and generation vintage in the same calendar or fiscal year as consumption or in the third or fourth quarter of the previous year or in the first quarter of the following year.

(iii) A second Scope 2 emissions total, calculated using a different method, may also be disclosed, provided requirements in subsection (l) are met for that method. Dual reporting of both a market-based and a location-based scope 2 emissions figure is consistent with the GHG Protocol's 2015 Scope 2 Guidance.

(iv) Scope 2 emissions must be calculated on at least an annual basis, and registrants should indicate which accounting timeframe (e.g. annual, hourly) has been used.

7. CRS requests that the SEC provide more information related to independent certification programs that may be used by reporting entities, their relevance in the context of “due process procedures” referenced in the Proposed Rules, and the extent to which these certification programs may be implicated in any fraud enforcement activities.

### **III. Detailed Comments, Recommendations, and Background**

#### III.A General Support for Required Climate-related Disclosures

CRS generally supports the SEC's requirements for climate-related information in registration statements, annual reports, and financial statements, including climate-related risks, greenhouse gas emissions, and climate-related financial metrics. We generally agree with the SEC's rationale for these Proposed Rules in the Introduction section (Sec. I) of the preamble to the Proposed Rules—“this information can have an impact on public companies' financial performance or position and may be material to investors in making investment or voting decisions,” and, “additional disclosure requirements may be necessary or appropriate to elicit climate-related disclosures and to improve the consistency, comparability, and reliability of climate-related disclosures”.<sup>2</sup>

Notwithstanding our general support of required climate-related disclosures, we have several concerns with the rules as initially proposed and offer recommendations to strengthen them.

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<sup>2</sup> Pg. 21335 of the Proposed Rules.

### III.B. Renewable Energy Certificates

Our first set of concerns and recommendations is related to references to and treatment of renewable energy certificates (RECs) in the Proposed Rules.

In the Proposed Rules, RECs and carbon offsets (hereafter “offsets”) are most often addressed together as similar strategies to reduce emissions and mitigate registrants’ emissions footprints. In this context, RECs, particularly as addressed in Sec. II.C.2 of the Proposed Rules (pg. 21355), generally refer to “unbundled” REC products and purchases, and the Proposed Rules suggest that RECs are used for *net* emissions accounting and adjustments.<sup>3</sup>

First, the importance of RECs in climate-related disclosures is not limited to unbundled REC products and purchases by companies. RECs are an accounting instrument essential to all renewable electricity procurement, delivery, and use in the United States. RECs must be included in all renewable electricity procurement, products, supply or purchasing options sold to or bought by a company, which include but are not limited to unbundled or stand-alone RECs that are procured separately from electricity.<sup>4</sup>

Second, RECs in general, and unbundled RECs in particular, are not equivalent to carbon offsets or used for *net* emissions accounting or adjustments to emissions footprints. RECs and renewable electricity procurement in general can be used to achieve *gross* Scope 2 emissions reductions and targets. They may also be used as a part of a strategy to achieve an overall net emissions reductions target (e.g. “net-zero”), but only by virtue of gross emissions reductions in Scope 2 from switching to renewable electricity substantiated with RECs. They cannot be used for net adjustments to Scope 2 or other scopes of emissions. To avoid confusion, the SEC should also avoid using the verb “offset” associated with RECs.<sup>5</sup>

#### *III.B.1. Recommendations Regarding Treatment of RECs in the Proposed Rules*

a. Revise the proposed definition of a REC at Sec. 229.1500(n) as follows:

(n) *Renewable energy certificate* (“REC”) means a tradable certificate representing property rights to all environmental and other nonpower attributes associated with the generation of a unit (e.g. one megawatt-hour) of electricity from a renewable resource on the electricity grid. These attributes include the fuel or resource type, location, greenhouse gas emissions, greenhouse gas

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<sup>3</sup> For example, “for a target or goal regarding net GHG emissions reduction, the discussion could include a strategy to increase energy efficiency, transition to lower carbon products, purchase carbon offsets or RECs, or engage in carbon removal and carbon storage” (pg. 21471 of Proposed Rules).

<sup>4</sup> See Sec. III.B.2 of these comments (“Background Regarding RECs”) below for more information about RECs.

<sup>5</sup> For example, “They then might plan to use carbon offsets or RECs to offset the remainder of their emissions that they cannot reduce through operational changes or to meet their GHG reduction goals while they transition to lower carbon operations” (pg. 21355 of Proposed Rules) (emphasis added).

emissions avoided or displaced on the grid, as well as all other impacts and benefits of the generation. RECs are required to demonstrate exclusive retail delivery and use of grid-connected renewable electricity, and associated generation attributes, for all procurement, transactions, and retail claims.

- b. Remove references to RECs anywhere they are currently referenced as a strategy or solution specifically to achieve *net* emissions reductions and where it is either stated or implied that RECs are used for *net* adjustments to gross emissions.<sup>6</sup>
- c. Sec. II.C.2 of the Preamble/Discussion (“Disclosure of Carbon Offsets and RECs if Used”) and Sec. 229.1506(d) should refer to all renewable electricity products, purchasing, generation, or procurement, as appropriate, and explain that REC ownership and retirement by or on behalf of the reporting company (or a group including the company) is required to substantiate all renewable electricity procurement and use that is disclosed. The SEC may additionally require companies to disclose the type of renewable electricity procurement, product or supply option purchased/used (e.g. unbundled RECs), but should not limit or set requirements for certain types of renewable electricity products/purchases/procurement. See our attached suggested revisions to Discussion/Preamble Sec. II.C.2 in Appendix A.

- d. Revise proposed Sec. 229.1506 as follows:

(d) If carbon offsets have been purchased as a part of a registrant’s plan to achieve net greenhouse gas emissions targets or goals, disclose the amount of emissions reductions (in metric tons carbon dioxide-equivalent), a description and location of the carbon reduction project(s), the name of the seller of the offsets (if different), the vintage of the offsets (or the year in which the reductions occurred), the project verification standard organization and/or offset credit issuing body, any retail offset product or sales certification associated with the offset transaction, and the cost of the offsets.

[New subsection (e), all subsequent subsections renumbered:]

(e) If a registrant has procured renewable, nonemitting, or other specified electricity as a part of its plan to achieve climate-related targets or goals, disclose the total amount of generation used or procured (in megawatt-hours), the resource/fuel type by percentage of the total, the location of the generation, the age of the generating facilities (can be a range), the vintage of the generation (or the year in which the generation occurred) (can be a range), the procurement method (e.g. self-generation using onsite equipment, power purchase agreement, utility program/product/tariff,

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<sup>6</sup> See, for example, pg. 21406 and 21431 of the Proposed Rules.



unbundled REC, etc.), the term length of the purchase agreement if applicable (e.g. one-time purchase, opt-in program enrollment, 10-year PPA, etc.), the name of the supplier, purchasing platform if applicable, and any certifications or standards (e.g. Green-e®) associated with the renewable energy product or transaction.

(l) All renewable or other specified electricity procurement disclosed per subsection (e) shall be substantiated with retirement of associated RECs, or generation/energy attribute certificates issued for non-renewable resource types, by or on behalf of the registrant (or a group including the registrant) for generating facilities that are registered in a regional renewable energy or generation attribute tracking system, or with contractual transfer and/or exclusive ownership and retention of all associated environmental attributes by the registrant for generating facilities that are not registered in a regional renewable energy or generation attribute tracking system.

e. Revise proposed Sec. 229.1502(c) as follows:

[...] If applicable, include in this discussion the role that carbon offsets or renewable energy procurement plays in the registrant's climate-related business strategy.

### *III.B.2. Background Regarding RECs*

For most customers, electricity is delivered on a shared electric transmission and distribution grid. The electricity physically delivered to grid-connected customers will be generated by a mix of local resources. All electricity is physically identical, carries no emissions, and cannot be directed to specific customers (from source to sink) on the grid. As a result, there is no physical delivery of *specified* (e.g. renewable, nonemitting) electricity or emissions on the grid.

In the United States, electricity generation and its attributes are bought and sold and allocated to retail load contractually, not physically, due to the nature of the grid and in order to enable markets. Delivery and use of renewable electricity and other specified power generation on the grid are determined contractually.

Renewable electricity is transacted using contractual instruments called renewable energy certificates (RECs)<sup>7</sup>. RECs represent property rights<sup>8</sup> to all environmental and other nonpower attributes associated

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<sup>7</sup> Slightly different names may be used by some state, regional, and voluntary programs (e.g. renewable energy credit), which have the same basic features as described here.

<sup>8</sup> See U.S. Federal Trade Commission (FTC) (November 27, 2007). Guides for the Use of Environmental Marketing Claims; Carbon Offsets and Renewable Energy Certificates; Public Workshop. Announcement of public workshop; request for public comment. Federal Register. Vol. 72, No. 227. Pg. 66095. Footnote 9. <https://www.govinfo.gov/content/pkg/FR-2007-11-27/pdf/FR-2007-11-27.pdf>

with the generation of a unit, e.g. one megawatt-hour (MWh), of electricity from a renewable resource on the electricity grid. RECs are a legal instrument. They are defined by states, tracking systems, and in contracts. They are recognized by states and in federal regulations. They are generally defined as including “all renewable and environmental attributes.” These attributes include the renewable fuel type, location, and in almost all cases both the direct GHG emissions and the avoided grid emissions associated with generation, as well as all other environmental and social impacts and benefits of the generation.<sup>9</sup>

RECs are the essential accounting and tracking tool used to allocate renewable generation to customers and to purchase green power, either to demonstrate compliance with state Renewable Portfolio Standard (RPS) programs or to meet voluntary demand for renewable energy. The use of RECs for this purpose is consistent across the United States.<sup>10</sup> In addition, certain grid regions in the U.S. are served by all-generation certificate tracking systems—including the New England Power Pool Generation Information System (NEPOOL-GIS), the PJM Generation Attribute Tracking System (PJM-GATS), and the New York Generation Attribute Tracking System (NYGATS)—which issue certificates for generation from all resource types and all electricity generation in their footprints. The certificates in these systems—Generation Information System (GIS) or Generation Attribute Tracking System (GATS) certificates—also represent the full suite of generation attributes, including carbon emissions, in order to facilitate the most precise tracking and accounting of delivered power in their regions.

In RPS states, RECs are retired by load-serving entities (LSEs) and other regulated entities to verify that they are complying with state requirements to provide their customers with renewable energy. In addition, all options for voluntarily delivering, purchasing or otherwise using renewable electricity in the United States, including onsite generation, must include RECs to substantiate a renewable energy usage or environmental claim. According to the U.S. Federal Trade Commission (FTC):

“A marketer should not make unqualified renewable energy claims, directly or by implication, if fossil fuel, or electricity derived from fossil fuel, is used to manufacture any part of the advertised

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See U.S. Commodity Futures Trading Commission (CFTC). (August 13, 2012). Further Definition of “Swap,” “Security-Based Swap,” and “Security-Based Swap Agreement”; Mixed Swaps; Security-Based Swap Agreement Recordkeeping; Final Rule. Federal Register. Vol. 77, No. 156. pg. 48233-48235. <https://www.govinfo.gov/content/pkg/FR-2012-08-13/pdf/FR-2012-08-13.pdf>

See Weinstein, J. (Jan 2021). *What are Renewable Energy Certificates?* Futures and Derivatives Law Report, Volume 41, Issue 1. Thomson Reuters.

See Jones, T. et al. (2015). The Legal Basis of Renewable Energy Certificates. Center for Resource Solutions. <https://resource-solutions.org/wp-content/uploads/2015/07/The-Legal-Basis-for-RECs.pdf>. Footnotes 12, 25, 27, 28, 32, and 34.

<sup>9</sup> In most state and tracking system definitions of RECs and green attributes, these GHG attributes are either explicitly included in definitions of RECs or attributes, or they are implicitly included in “all environmental benefits,” “whole certificate,” or similar inclusive language. But, slight variations in state REC or attribute definitions do not significantly affect the uniformity of the REC instrument as used across the U.S., and certainly do not affect their use in the voluntary renewable energy market. We are aware of only one state, North Carolina, that allows the avoided emissions attribute to be traded separately from the REC for RPS compliance. Though Delaware and Pennsylvania do not appear to require avoided emissions with RECs for compliance, the PJM-GATS tracking system used for compliance in these states includes avoided emissions attributes as a part of a “whole certificate.” In the case of North Carolina, the contracting parties can specify that the avoided emissions attribute is attached to the REC if they so choose.

<sup>10</sup> Jones, T. (2015). The Legal Basis of Renewable Energy Certificates. Center for Resource Solutions. Available online at: <https://resource-solutions.org/wp-content/uploads/2015/07/The-Legal-Basis-for-RECs.pdf>.

item or is used to power any part of the advertised service, unless the marketer has matched such nonrenewable energy use with renewable energy certificates;”<sup>11</sup>

and,

“If a marketer generates renewable electricity but sells renewable energy certificates for all of that electricity, it would be deceptive for the marketer to represent, directly or by implication, that it uses renewable energy.”<sup>12</sup>

RECs are created at the point of generation, owned by the generator and then transacted to electricity distributors and suppliers (e.g. utilities) or directly to electricity consumers, either “bundled” with the electricity or separate from electricity (“unbundled”):

“RECs have become an important tool for the renewable electricity market. Once renewable electricity is introduced into the grid, it is physically indistinguishable from electricity generated from conventional sources. Accordingly, consumers cannot determine the source of the electricity flowing into their homes and businesses. However, because electricity transactions can be tracked, entities can ‘buy’ renewable power by purchasing power bundled with RECs. Under the REC system, a renewable electricity generator splits its output into two components: (1) the electricity itself (i.e., ‘null’ electricity); and (2) certificates representing the renewable attributes of that electricity. Generators that produce renewable electricity sell their electricity at market prices for conventionally produced power and then sell the renewable attributes of that electricity through separate certificates. Organizations purchase these RECs to characterize all or a portion of their electricity usage as ‘renewable’ by matching the certificates with the conventionally-produced electricity they normally purchase. By allowing these certificates to be sold separately and not requiring the renewable attribute to remain attached to the generated electricity, the REC approach provides flexibility and efficiency for the renewable electricity market.”<sup>13</sup>

RECs are either created by a generator or issued to generators by one of several electronic certificate tracking systems (“REC tracking systems”) that cover different regions of the United States. Even in the case that a renewable generator is not registered with a tracking system, RECs are de facto created for each MWh of generation and may be transferred and retired contractually.

Trading a REC in the United States, whether bundled or unbundled with underlying electricity, transfers ownership rights to all of the attributes of the associated renewable electricity generation to the REC

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<sup>11</sup> U.S. Federal Trade Commission (FTC). (2012). Guides for the Use of Environmental Marketing Claims; Final Rule. Sec. 260.15(a). Available at: [www.ftc.gov/sites/default/files/documents/federal\\_register\\_notices/guides-use-environmental-marketing-claims-green-guides/greenguidesfrn.pdf](http://www.ftc.gov/sites/default/files/documents/federal_register_notices/guides-use-environmental-marketing-claims-green-guides/greenguidesfrn.pdf)

<sup>12</sup> U.S. Federal Trade Commission (FTC). (2012). Guides for the Use of Environmental Marketing Claims; Final Rule. Sec. 260.15(d). Available at: [www.ftc.gov/sites/default/files/documents/federal\\_register\\_notices/guides-use-environmental-marketing-claims-green-guides/greenguidesfrn.pdf](http://www.ftc.gov/sites/default/files/documents/federal_register_notices/guides-use-environmental-marketing-claims-green-guides/greenguidesfrn.pdf)

<sup>13</sup> U.S. Federal Trade Commission. (2015). Letter from James A. Kohm, Associate Director, Division of Enforcement, Bureau of Consumer Protection, to R. Jeffrey Behm, Esq., Sheehey, Furlong & Behm, P.C. February 5, 2015. Available at: [www.ftc.gov/system/files/documents/public\\_statements/624571/150205gmpletter.pdf](http://www.ftc.gov/system/files/documents/public_statements/624571/150205gmpletter.pdf).

purchaser. Therefore, power without the renewable attributes, or “null power” where the renewable attributes have been sold to a different purchaser, is not renewable power and cannot be claimed as renewable or zero-emissions energy:

“In addressing these issues in the Green Guides, the Commission [...] did warn that power providers that sell null electricity to their customers, but sell RECs based on that electricity to another party, should keep in mind that their customers may mistakenly believe the electricity they purchase is renewable, when legally it is not. Accordingly, it advised such generators to exercise caution and qualify claims about their generation by disclosing that their electricity is not renewable.”<sup>14,15</sup>

In this way, RECs prevent double counting of the same renewable generation by multiple consumers or more than once by a particular consumer:

“[T]he operation of the renewable energy market relies heavily on the expectation of all market participants that these certificates have not been counted or claimed twice (i.e., double counted). Such double-counting can occur, for instance, through [...] renewable energy claims made by a company that already sold the RECs for its renewable generation. [...] Such double counting, in turn, not only risks deceiving consumers but also threatens the integrity of the entire REC market. By selling RECs, a company has transferred its right to characterize its electricity as renewable.”<sup>16</sup>

Besides allowing suppliers and grid customers to verify delivery and use of renewable electricity and preventing double counting, RECs also facilitate consumer demand and create access to renewable electricity. RECs represent a standardized currency for renewable electricity. They facilitate trading, creating market efficiencies, which creates a more vigorous market for renewable electricity.

In the context of contractual allocation of generation and associated emissions to load, there is no distinction in terms of accounting and claims between contracts and certificates conveying attributes, bundled and unbundled procurement, utility and customer procurement, or regulatory and voluntary procurement of generation and attributes, especially in regions with organized wholesale electricity markets and full retail choice, though consumers and states can express preferences to achieve certain objectives.

Contractual allocation of renewable electricity generation using RECs also facilitates a national voluntary market for renewable energy and associated claims. REC markets can be different and larger than the local area of physical interconnection on the grid because attributes (e.g. emissions) are not

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<sup>14</sup> See Statement of Basis and Purpose at 225, available at: [www.ftc.gov/sites/default/files/ attachments/press-releases/ftc-issues-revised-green-guides/greenguidesstatement.pdf](http://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-issues-revised-green-guides/greenguidesstatement.pdf)

<sup>15</sup> U.S. Federal Trade Commission (FTC). (2015). Letter from James A. Kohm, Associate Director, Division of Enforcement, Bureau of Consumer Protection, to R. Jeffrey Behm, Esq., Sheehey, Furlong & Behm, P.C. February 5, 2015. Available at: [www.ftc.gov/system/files/documents/ public\\_statements/624571/150205gmpletter.pdf](http://www.ftc.gov/system/files/documents/public_statements/624571/150205gmpletter.pdf)

<sup>16</sup> U.S. Federal Trade Commission (FTC). (2015). Letter from James A. Kohm, Associate Director, Division of Enforcement, Bureau of Consumer Protection, to R. Jeffrey Behm, Esq., Sheehey, Furlong & Behm, P.C. February 5, 2015. Available at: [www.ftc.gov/system/files/documents/ public\\_statements/624571/150205gmpletter.pdf](http://www.ftc.gov/system/files/documents/public_statements/624571/150205gmpletter.pdf)

delivered through the grid. The boundaries for credible renewable electricity usage claims are therefore the boundaries of the regulatory and legal system through which generation attributes are contractually delivered. Such a difference does not affect accuracy of accounting or claims and allows for demand/purchasing of electricity to support new clean supply where that supply is needed to create the most benefit.

RECs should not be confused with carbon offsets. They are different instruments that convey different claims, and they are accounted for differently in a consumer's GHG emissions inventory or footprint. Whereas RECs represent a MWh of renewable energy generation, carbon offsets represent an amount of GHG emissions reduction in tons of carbon dioxide-equivalent (CO<sub>2</sub>e). REC purchasers effectively contractually fuel switch from a certain mix of electricity generation (and associated emissions) to renewable generation (and associated emissions). They can therefore both reduce the portion of their carbon footprint associated with purchased electricity (i.e. gross Scope 2) and claim that their generation has an effect on emissions on the grid (i.e. avoided emissions). A carbon offset is a standalone, global emissions reduction beyond a baseline level of emissions from a project activity that would not have occurred but for the carbon offset market. Carbon offsets can be used to address any scope of emissions as a net adjustment to the gross consumer GHG inventory. Likewise, purchasing carbon offsets, which do not include non-GHG generation attributes, is not equivalent to purchasing renewable energy instruments or certificates, and carbon offsets cannot be used to make renewable energy consumption or zero-emissions electricity usage claims.

### III.C. Scope 2 Emissions Accounting

Our second set of concerns and recommendations is related to requirements for Scope 2 emissions accounting and reporting in the Proposed Rules.

The Proposed Rules allow for companies to use a "market-based" method, "location-based" method, both, or any other method for gross Scope 2 emissions calculations, provided they identify the method and data source.<sup>17</sup> The Proposed Rules also do not recognize RECs as the legal instrument for attributing renewable electricity generation and associated emissions to retail load/customers.

Notwithstanding the SEC's explanation that allowing any Scope 2 calculation method will "[allow] for some flexibility" and "permit registrants to adapt to new approaches, such as those pertaining to their specific industry, as they emerge,"<sup>18</sup> it could result in inaccurate, legally unsupported, inconsistent, and/or irrelevant Scope 2 reporting.

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<sup>17</sup> Pg. 21386 of Proposed Rules.

<sup>18</sup> Pg. 21377 of Proposed Rules.

The market-based method<sup>19</sup> is the most accurate Scope 2 emissions calculation method for the United States. It reflects market transactions by both companies and utilities, ownership of generation attributes (property rights<sup>20</sup>), and the legal allocation of generation and emissions to retail load. A market-based Scope 2 figure is also most relevant for investors and most appropriate for climate disclosures required by the SEC, as it reflects the companies' choice and market activity regarding sources of electricity.<sup>21</sup> Investors require consistent and standardized information as well as information that is useful in an evaluation of a company's climate-related risks, responsibilities, and actions.

Furthermore, as the essential accounting and verification instrument for delivery, purchasing and use of renewable electricity generation, RECs are also essential to accurate gross Scope 2 emissions accounting. RECs must be used to account for emissions associated with renewable electricity generation in Scope 2 accounting in order for that account to properly represent the legal allocation of renewable electricity generation to customers in the United States.<sup>22</sup> According to the GHG Protocol's Scope 2 Guidance: "many contractual instruments convey legally enforceable rights and claims that can affect how a company describes its purchases and its overall environmental performance. Neglecting to report a market-based scope 2 that aligns with those claims can expose companies to legal risks."<sup>23</sup>

While it may simplify administration, it would not be sufficient for the SEC to simply require registrants to report Scope 2 emissions in accordance with the GHG Protocol. While the 2015 Scope 2 Guidance requires use of the market-based method for electricity consumption in the United States,<sup>24</sup> this guidance may change independently in ways that cannot be controlled by the SEC as a result of the GHG Protocol's own standard development process. Therefore, the SEC should ensure that Scope 2 emissions accounting and reporting is market-based, as recommended below.

### *III.C.1. Recommendations Regarding Scope 2 Emissions Accounting*

- a. Require a market-based accounting method for scope 2 emissions calculations, which *inter alia* reflects ownership and retirements of RECs associated with any renewable electricity generation (and associated emissions) used for those calculations. The SEC should not permit alternative Scope 2 calculation methods to be used without a market-based figure, as those methods will not

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<sup>19</sup> Described in detail in Sec. III.C.2 of these comments below and in Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute.

[https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf)

<sup>20</sup> See Sec. III.B.2. of these comments above.

<sup>21</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 8: "A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice)."

<sup>22</sup> See Sec. III.B.2 of these comments above.

<sup>23</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 17. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf).

<sup>24</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 59. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf).

accurately reflect generation and emissions allocated to electricity customers or customers' property rights. This would also result in inconsistency and double counting among reporting entities within Scope 2. Alternative methodologies also may not reflect a company's choice and market activity regarding sources of electricity. "Dual reporting" of both market-based and location-based Scope 2 emissions consistent with the current GHG Protocol guidance,<sup>25</sup> can be permitted. Revise Sec. 229.1504(e) as follows.

[New subsection 2, all subsequent subsections renumbered:]

(2) To calculate Scope 2 emissions, a registrant must use a market-based accounting method reflecting its electricity supply choices (or lack of choice) and the generation and associated attributes (e.g. emissions) that are contractually delivered to and consumed by the registrant. A registrant must multiply each unit (e.g. MWh) of electricity purchased/acquired and consumed from an entity outside of the organization or from owned/operated generation facilities where generation attributes (e.g. RECs) have been sold or transferred by the emissions factor (e.g. tons CO<sub>2</sub>e/MWh) associated with the contractual instrument (e.g. bundled PPA, unbundled REC) or data source (e.g. utility or supplier retail product or default resource mix, regional residual mix) that corresponds with that purchase, using the most precise and highest quality data available.

(i) Scope 2 emissions associated with purchased renewable electricity must be substantiated with retirement of associated RECs by or on behalf of the registrant (or a group including the registrant) for generating facilities that are registered in a regional renewable energy or generation attribute tracking system, or with contractual transfer and/or exclusive ownership and retention of all associated environmental attributes by the registrant for generating facilities that are not registered in a regional renewable energy or generation attribute tracking system. In regions where generation/energy attribute certificates are created for and issued to non-renewable resource types (or all generation), they, like RECs, must be retired by or on behalf of the registrant (or a group including the registrant) to verify its exclusive use of specified generation. If RECs or other attribute certificates are sold, registrants must calculate emissions associated with that consumption using emissions factors such as "replacement" certificates, a supplier's default product emission rate, or residual mix emissions rate.

(ii) RECs and contractual instruments must meet general quality criteria, including tracking and retirement of attributes and generation vintage in the same calendar or fiscal year as consumption or in the third or fourth quarter of the previous year or in the first quarter of the following year.

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<sup>25</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf)

(iii) A second Scope 2 emissions total, calculated using a different method, may also be disclosed, provided requirements in subsection (1) are met for that method. Dual reporting of both a market-based and a location-based scope 2 emissions figure is consistent with the GHG Protocol's 2015 Scope 2 Guidance.

(iv) Scope 2 emissions must be calculated on at least an annual basis, and registrants should indicate which accounting timeframe (e.g. annual, hourly) has been used.

### *III.C.2. Background Regarding Market-based Scope 2 Emissions Accounting*

#### *III.C.2.a. Footprints*

GHG emissions inventories (or “footprints”)—the direct and indirect emissions associated with a company’s operations—are defined by at least three general characteristics.

First, they are “attributional” accounts of emissions.<sup>26</sup> Whether direct or indirect, all GHG emissions in corporate footprints are measured at the point of production. They are emissions produced by the company’s operations, equipment, and buildings (Scope 1) and from the production of the products and services it uses (Scopes 2 and 3). They are not the emissions effect or the change in emissions in a sector resulting from the company’s operations or the products it uses,<sup>27</sup> or measured relative to a reference case or baseline scenario.

Second, they require market data in addition to source emissions data. Determining the produced GHG emissions that are attributable to different companies requires both source emissions data and market data—about ownership, control, and purchasing of emitting assets, activities, and products and services with associated emissions. Emissions in corporate footprints are not necessarily the emissions occurring at the company’s location. Likewise, the emissions occurring at a particular location are not necessarily the emissions for which companies at that location are responsible.<sup>28</sup>

Third, emissions in all Scopes can increase or decrease without reflecting changes to actual emissions to the atmosphere. This is because, first, ownership of emissions overlaps between entities. Indirect emissions are “shared” as both the direct (Scope 1) emissions of the owner/operator of the source and the indirect (Scope 2 or 3) emissions of the user of products and services created using that source.

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<sup>26</sup> See CRS’s *Renewable Energy and Greenhouse Gas Accounting Glossary*, available at <https://resource-solutions.org/wp-content/uploads/2021/03/Glossary-of-Terms.pdf>.

Attributional accounting is called an “emissions rate approach” in the 2015 GHG Protocol Scope 2 Guidance. See Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 27-8. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf)

<sup>27</sup> This generally describes “consequential” accounting. See CRS’s *Renewable Energy and Greenhouse Gas Accounting Glossary*, available at <https://resource-solutions.org/wp-content/uploads/2021/03/Glossary-of-Terms.pdf>.

<sup>28</sup> Footprints (which are not determined by location) can, however, be disaggregated by location. That is, location data as referenced in the Proposed Rules (pg. 21382), can be provided.



Second, emissions, both direct and indirect, can shift or move between companies. Companies can sell assets rather than shut them down to reduce their Scope 1 emissions, in which case the asset may continue to operate and overall emissions do not change. Companies can choose cleaner products or even stop buying altogether to reduce Scope 2 and 3 emissions without that affecting overall global production and emissions.

But measuring footprints serves an important purpose—it allows companies to understand and change their demand (e.g. use cleaner products), leveraging their position as consumers to drive sustainable change and decarbonization. It allows investors and other stakeholders to determine whether companies have acted to reduce their responsibility and demand for emissions, and it is an indicator of financial risk associated with high exposure to carbon-intensive activities or practices.

### III.C.2.b. Scope 2

Scope 2 emissions are the “emissions from the generation of purchased electricity.”<sup>29</sup> They are the indirect emissions of electricity consumers and the same emissions that are reported as the direct Scope 1 emissions of electricity generators. There is no double counting between Scope 1 and Scope 2 emissions. Scope 2 (and other indirect emissions in Scope 3) are reported by consumers of products and services so that they can be managed from a demand-side perspective.

Determining the GHG emissions from electricity generation that are attributable to different consumer companies (Scope 2 emissions) requires market data and, due to the nature of the transmission and distribution system (the shared electric grid), it also requires contractual market instruments for tracking generation and associated emissions to consumers and differentiating and defining specified electricity delivery and use.

As previously noted, in the United States, differentiated and specified power is bought, sold and allocated to load contractually. Transactions of electricity generation occur outside the grid and are not necessarily constrained by proof of physical delivery. This contractual system for transacting specified power and allocating generation to load was deliberately and collectively chosen<sup>30</sup> to enable markets for electricity and to facilitate the power of choice on supply of electricity on the grid, which prevents electricity from being physically directed to specific load/customers and unavoidably mixes all generation together for physical delivery of electricity. As a result, the physical distribution of electricity on the grid does not necessarily determine the market-based distribution of electricity generation or emissions to grid customers.

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<sup>29</sup> The GHG Protocol Corporate Accounting and Reporting Standard, Revised. World Resources Institute. Pg. 25. Available at: <https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>.

<sup>30</sup> The contractual system is the result of decades of market development that has been shaped by state and federal laws and regulatory decisions, legal and market based contractual practices, and programs and practices adopted by public and private sector participants in power markets.

### III.C.2.c. Market-based Scope 2

A “market-based” accounting method for Scope 2 emissions reflects market transactions, procurements, and purchasing decisions made by suppliers and companies. The resulting market-based Scope 2 emissions figure represents the emissions associated with electricity generation that is purchased and contractually delivered to and consumed by retail customers, and as such, the legally enforceable allocation of emissions from electricity generation to retail electricity customers.

A market-based method calculates Scope 2 emissions using the emissions rates of electricity generation that a company purchases, either from generators or from utilities and other suppliers using contractual agreements and instruments. It relies on market data including purchased generation and attributes, LSE retail product/portfolio mixes (based on its owned and procured generation and attributes), and regional “residual” (or publicly allocated) mixes of generation (based on regional market transactions of generation attributes). The market-based method can be differentiated from the “location-based” method, which assigns the average emissions rate of all electricity generated in the region (e.g. eGRID subregion) where a company’s operations are located to every MWh used. The location-based method does not use market data and does not reflect any purchasing choices of consumers, or any RPS compliance activity or other specific procurement undertaken by their utility or supplier. Under current best practice, a market-based Scope 2 figure is required for corporate emissions reporting in markets where differentiated energy products in the form of contractual instruments (including direct contracts, certificates, or supplier-specific information) are available, including the United States.<sup>31</sup>

Market-based Scope 2 accounting is consistent with all existing state policies and programs, including state Clean Energy Standard (CES) and RPS programs, power source disclosure programs, resource planning processes, and rules for accounting for emissions associated with imported and delivered electricity (both direct and from regional markets). All of these existing policies recognize the delivery of specified power and emissions on the grid based on contractual instruments.

### III.C.2.d. RECs and Market-based Scope 2

As previously noted, RECs are the common market instrument for renewable electricity in the United States. They are required to contractually demonstrate delivery and use of renewable electricity on the grid.<sup>32</sup> To avoid double counting, the fuel type and the GHG emissions (which are interdependent and

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<sup>31</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 59. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf)

<sup>32</sup> See Jones, T. et al. (2015). *The Legal Basis of Renewable Energy Certificates*. Center for Resource Solutions. <https://resource-solutions.org/wp-content/uploads/2015/07/The-Legal-Basis-for-RECs.pdf>.

See Weinstein, J. (Jan 2021). *What are Renewable Energy Certificates?* Futures and Derivatives Law Report, Volume 41, Issue 1. Thomson Reuters.

inseparable), along with all other attributes of generation, are tracked and transacted together in the REC. As such, unique RECs are required to account for use of electricity with the specified emissions factor of a renewable generator in Scope 2. Accurate accounting of the emissions associated with purchased electricity reflects the legal distribution of renewable electricity generation and RECs. Self-generation of electricity using a renewable resource where the associated RECs are sold or procurement of electricity from a renewable generator without the RECs (“null” power) is assigned the emissions of the residual mix of generation on the grid.<sup>33</sup>

### III.C.2.e. Market-based Data Considerations

Accurate market-based Scope 2 accounting requires market data in the form of REC and other certificate transaction and retirement data from regional generation attribute tracking systems, energy transaction data for specified resources that do not receive certificates, retail electricity emissions factors by LSE/supplier and by product offering (i.e. utility-specific emissions factors), and regional or market-specific residual mix emissions factors. For this reason, the GHG Protocol has established both a market-based data hierarchy and quality criteria in its 2015 Scope 2 Guidance.<sup>34</sup>

By requiring market-based accounting, as recommended, the SEC need not entirely reproduce this guidance or necessarily set standards for market-based electricity data or instruments. However, the SEC can and should require that data used for Scope 2 accounting generally reflect exclusive ownership of generation attributes, as recommended.

In evaluating Scope 2 disclosures, the SEC should be aware that availability and quality of this data varies by location, and specifically regarding utility-specific emissions factors, those that should be used by companies/registrants for market-based Scope 2 accounting may be different from the utility/LSE emissions data that is reported to states or under different state programs (e.g. state GHG emissions reporting programs, power source disclosure programs, resource planning programs/requirements), which again vary and may not account for all transactions of power and attributes.<sup>35</sup> However, the SEC should not necessarily accept Scope 2 calculations based on utility data from state disclosure/compliance programs unless that data does reflect attribute transactions and ownership and if such data is available. Likewise, where utility data is not available, the SEC should not accept Scope 2 calculations based on regional grid average emissions (even those that have been adjusted for imported and exported power) that does not reflect transactions of power and attributes, if residual mix emissions data is available.

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<sup>33</sup> U.S. Federal Trade Commission (FTC). (2015). Letter from James A. Kohm, Associate Director, Division of Enforcement, Bureau of Consumer Protection, to R. Jeffrey Behm, Esq., Sheehey, Furlong & Behm, P.C. February 5, 2015. Available at: [www.ftc.gov/system/files/documents/public\\_statements/624571/150205gmpletter.pdf](http://www.ftc.gov/system/files/documents/public_statements/624571/150205gmpletter.pdf)

<sup>34</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 48 and 60, respectively.

<sup>35</sup> See CRS. March 2021. Data Sources: Accounting for Standard Delivery Renewable Energy. Clean Energy Accounting Project. Available at: <https://resource-solutions.org/document/03152101/>

The SEC need only require that the most precise and highest quality data available was used, as recommended.

### III.C.2.f. Substandard Alternatives to Market-based Scope 2

Alternative Scope 2 accounting methods have been thoroughly considered by diverse groups of stakeholders in open and transparent processes during and since the development of the 2015 GHG Protocol Scope 2 Guidance. Other emissions totals (e.g. nos. 2 and 3 below) are not appropriate or accurate for Scope 2, but they can also be disclosed by companies.

Different totals reflect different generation sources and provide a different picture of generation and emissions. One total does not necessarily affect the accuracy of another. Only certain totals fit the definition of Scope 2 emissions, but other totals may nevertheless be valuable both for corporate decision-making in response to climate change as well as for investors.

#### 1. Location-based Scope 2

Current GHG Protocol scope 2 guidance requires “dual reporting” of both a market-based scope 2 total and a location-based total. Importantly, the location-based total does not represent the “actual” or “physical” emissions associated with purchased electricity. It is a share of the regional emissions total based on the grid average emissions rate and the customer’s load. It does not reflect market transactions of generation and attributes by either generators, utilities/suppliers, or customers. Rather, the location-based approach to Scope 2 accounting assumes that generation equals consumption at a location regardless of a supplier’s or purchaser’s contractual arrangements for specified power and generation attributes.

In the context of dual reporting, the location-based Scope 2 total can be helpful extra information, allowing companies to see the average of what is produced in the region in which they consume. But reporting a location-based Scope 2 total without or instead of a market-based total would ignore contractual purchases and legally enforceable transactions of electricity generation and attributes by generators, utilities, and customers, both for voluntary sales and state compliance. To disregard that reality would result in an account of Scope 2 emissions that is irrelevant and unhelpful. It would fail to recognize demand-side action to reduce emissions and consumer preferences for lower-emitting generation, which is in direct conflict with the purpose of carbon footprinting.

## 2. Grid modeling or other methods to determine generation sources of consumed electricity

Both the market-based and location-based totals may also yet be different from the emissions associated with the generation of the power that electrifies (or is physically consumed at) a company's locations. This total depends generally on proximity to generation sources, paths of least resistance on the grid, and the regional markets, contractual arrangements, and load profiles and variations that dictate whether and when certain generation operates. Measuring these emissions may facilitate beneficial siting and load management decisions. But reporting only these emissions without or instead of a market-based Scope 2 total would not accurately represent the emissions associated with the generation sold to and purchased by the customer, and for which the customer is contractually and legally responsible. The emissions associated with the generation of the power that is physically consumed at a company's location may in fact be contractually allocated and delivered to or purchased by a different company. Reporting these emissions instead of a market-based Scope 2 total would also remove consumer choice as a driver for change. As with the location-based method, there would be no accountability for buying dirty power and no incentive to buy clean.

## 3. Consequential accounting

Another alternative method and emissions total is a "consequential" or "avoided emissions" total.<sup>36</sup> Consequential emissions totals—representing the emissions effect or the change in emissions on the grid or in the sector (e.g. avoided emissions) resulting from electricity generation (produced or consumed)—should not be confused with attributional emissions totals. Footprints and Scope 2 emissions are attributional by definition.<sup>37</sup> Combining attributional and consequential accounting frameworks would redefine carbon footprints, and discard the information and value they bring, and could lead to confusing or false claims. Companies can calculate and report avoided emissions associated with purchased renewable generation, for example, outside of the Scopes, as recommended by the GHG Protocol,<sup>38</sup> as well as other potential metrics and standards for different dimensions of impactful procurement.

These other emissions totals would also be less relevant to investors than market-based Scope 2 emissions. The market-based total reflects the specific actions (market transactions and procurement choices) of both the electricity supplier and the reporting company related to electricity purchasing. It captures the impact of consuming electricity as a purchaser and customer of certain suppliers with certain contractual arrangements while still accounting for actions consumers can take to affect the

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<sup>36</sup> This alternative approach is specifically addressed on pgs. 27-28, 52-53, and 61 of Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf)

<sup>37</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 27-8. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf)

<sup>38</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 52-3. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf)

impacts of consuming electricity at a specific location (e.g. energy efficiency and conservation). Without a market-based Scope 2 figure, vital information related to the choices that companies make regarding the power and associated emissions that they purchase would be hidden.

Differences between electricity procurements that are not reflected in Scope 2—for example, in terms of the location or timing of the generation relative to load, avoided grid emissions, or whether and how the generation or procurement directly created new generation capacity or addressed barriers to grid decarbonization—can be disclosed separately (for example, see our recommended changes to Sec. 229.1506 in Sec. III.B.1 of these comments above). But attributional, market-based Scope 2 accounting is nevertheless correct and valuable to companies, investors and other stakeholders.

### III.C.2.g. Inadvisable Limitations on and Additional Criteria for Market-based Scope 2

The SEC should not limit or restrict procurement options that can be used for Scope 2 emissions calculations.

1. The SEC should not impose “additionality” requirements or limit electricity procurements that can be reflected in Scope 2 emissions to only those which directly affect supply.

Limiting reporting to actions that directly affect supply may increase the impact of a reduced number of individual reported procurements and better align reported Scope 2 (demand) with supply and reported Scope 1 emissions from the electricity sector, but it would decrease overall demand and the impact of the broader market.

While Scope 2 emissions measure only the emissions produced by the electricity generation purchased, and the impact of that electricity purchase on electricity production and global/sectoral emissions is not reflected, nothing is gained by conflating the two. Impact on supply as a requirement for use and footprint accounting in any Scope would ignore all demand for emissions leading up to the last increment and defeat the very purpose of footprint accounting. The driver for demand-side action is lost, and changes to supply (and resulting emissions reductions) get more expensive and unlikely.<sup>39</sup> If reductions to footprints had to represent global or sectoral emissions reductions—and, for example, companies could not reduce their own emissions by selling assets, switching to cleaner products, or decreasing their use without changing the overall production or supply of dirty products—then once again, there would be no market for clean products. Emissions disclosure would not reflect consumer demand for cleaner products and changes to buying behavior that can drive changes in production.

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<sup>39</sup> For example, states often use other programs to “complement” or support direct regulation of GHG sources by reducing upstream and downstream demand for those emissions and bringing down the costs of compliance.

2. The SEC should not require that Scope 2 emissions be calculated on an hourly basis (“hourly accounting”), though it should be allowed.

Hourly accounting is not needed for accuracy. Annual claims and reporting can be accurate on an annual basis. Evaluating the accuracy of annual claims using hourly data and an hourly accounting framework may be misleading. It is a methodological difference/preference. The hourly “gaps” in usage that appear when you shift from annual to hourly accounting are a result of the methodological change restricting the application of generation to load. Such a restriction and methodological change is not required for a credible usage (and Scope 2 emissions) claim since electricity and generation attributes (emissions) are separate and use of specified generation is determined contractually. Choosing to bind them together, to make purchased generation more closely resemble the generation used for physically consumed electricity, would limit the size of the market and its impact.

A company's relationship with the physical grid remains the same whether they choose to match generation to load on an annual or hourly basis. Like all grid customers, companies that choose to match on an hourly basis rely on the grid and the local mix of generation resources for physical power. Hourly matching of clean generation to load does not mean that a company is physically powered with clean energy, and annual matching is not an abstraction from that. Companies may increase the likelihood that the power that physically electrifies their buildings comes from carbon-free sources by aligning the time of their consumption with local carbon-free generators. Companies doing annual procurement can do the same. Even then there may be a difference between the power that physically electrifies a customer's location and local time-coincident purchased generation reflected in an hourly market-based Scope 2 total. They are different numbers.

Power trading, which can be done in real time, day-ahead, and long-term markets, for example, also need not constrain or determine attribute trading and retail usage claims. We have established that electricity and generation attributes are separate and that is helpful for markets. Time-coincidence with load is generally not a condition of delivery for utilities and LSEs in the United States reporting their sources and procurement for retail sales, specifically in resource-specific contracts and to meet state requirements.

Measuring on an hourly basis may have different advantages, like greater resolution that can help drive procurement with different temporal benefits (e.g, electricity storage, renewable generation resources that operate at specific times of day/seasons). But it may also bring about greater challenges and costs which could harm overall demand and procurement. Annual matching, on the other hand, may lack resolution regarding the time of generation relative to load. It will not address a mismatch between the timing of consumption and generation *or directly incentivize* action to address hours in which companies have load but in which there is no local clean energy production. But it may also drive procurement independent of load, which may be good for the grid depending on what one's load

shape and regional load looks like. Annual accounting has been accepted in order to drive overall demand and markets. Annual accounting does not impede carbon-free energy generation in every hour and hourly matching also allows companies to get to 100% carbon-free electricity before the local grid is 100% carbon-free. The extent to which hourly procurement and matching is required or optimal to achieve a 100% clean energy grid that delivers clean energy 24x7 to everyone has not been shown and depends on a number of important assumptions and purchasing parameters.<sup>40</sup>

Though it should not be a requirement for these reasons, companies can procure and should be permitted to report Scope 2 emissions using an hourly or shorter timeframe if they have the data and can substantiate those claims.

3. The SEC should not set subnational geographic boundaries for renewable energy procurement or Scope 2 reporting.

Attribute markets can be different and larger than the physical grid because attributes (emissions) are not delivered through the grid. The boundaries are the boundaries of the regulatory and legal system through which they are contractually delivered. Such a difference does not affect accuracy and allows for demand/purchasing of electricity to support new clean supply where that supply needs to happen to create the most benefit (a national market).

Market-based Scope 2 accounting appropriately allows for sourcing and use of generation regardless of physical delivery of energy, creating bigger markets that can scale renewable and clean generation over a larger area and making it more cost effective. Historically, the result has been innovative and impactful new procurement options, like virtual power purchase agreements (VPPAs), which have played a huge part in new capacity additions recently.<sup>41</sup> It has also facilitated procurement approaches that seek to maximize the avoided grid emissions associated with purchased generation, which may require sourcing from outside of one's region. Setting restrictive geographical boundaries for reporting (e.g. clean energy purchasing for Scope 2 emissions reporting only from within the customer's local grid region or balancing authority area) would exclude these procurements and reduce impact.

#### III.C.2.h. Market Impact

The alternatives and restrictions to market-based Scope 2 accounting described above are often presented as being necessary due to a perceived lack of impact associated with certain renewable electricity procurement options that can be used to reduce market-based Scope 2 emissions.

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<sup>40</sup> For example, see the assumptions for Xu, Q., Manocha, A., Patankar, N., and Jenkins, J.D., System-level Impacts of 24/7 Carbon-free Electricity Procurement, Zero-carbon Energy Systems Research and Optimization Laboratory, Princeton University, Princeton, NJ, 16 November 2021. Available at: <https://acee.princeton.edu/24-7/>.

<sup>41</sup> See the Clean Energy Buyers Alliance (CEBA) Deal Tracker: <https://ceb buyers.org/deal-tracker/>.



The impact of different renewable electricity procurement options on renewable energy supply or global emissions is separate from the accuracy of GHG footprint claims and accounting and should continue to be so. But importantly, procurement and purchasing to reduce market-based Scope 2, and markets for renewable electricity, are impactful. The voluntary renewable energy market operates on the same general principle as other markets—that aggregated consumer demand drives changes in production. RECs enable that demand and choice on the grid. Depending on supply and demand and procurement details, individual purchases to reduce reported market-based Scope 2 emissions may not directly change the composition of the grid. But this is not unique to RECs. Contracts for physical electricity can also be reallocated to different consumers without affecting generation or grid composition. In fact, purchasing any clean product, even ones that (unlike electricity) can be differentiated at the point of consumption based on their clean production, may not change overall production of that product, which may be a mixture of dirty and clean. All purchasers, however, are not equally responsible for the overall mixture. Consumers that choose buy clean are changing their own usage (and the emissions associated with their usage, i.e. their footprint), reflected in Scopes 2 and 3, and there is a demand-side effect of that choice. All demand leading up to the last increment that forces a change in supply matters to make that increment happen. Consumer demand that indirectly affects supply is also critical for a market that cost-effectively drives change.

In particular, unbundled RECs increase access to renewable electricity generation generally and access to generation with the greatest emissions and grid benefits nationally.<sup>42</sup> Unbundling increases trading and creates a national market for renewable generation which is good for both demand and cost. The majority of new renewable energy capacity additions since 2015 have been to serve non-compliance demand,<sup>43</sup> a portion of which is voluntary demand, and unbundled RECs account for the majority of voluntary green power sales,<sup>44</sup> amounting to 86 million MWh of voluntary unbundled REC demand annually<sup>45</sup> or 16.3% total generation from non-hydro renewables in 2021.<sup>46</sup>

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<sup>42</sup> See U.S. Environmental Protection Agency. (2022). National Assessment of Consumer Access to Green Power Supply: Leadership and Impact Considerations. Prepared for The Green Power Partnership U.S. Environmental Protection Agency. Prepared by: The Cadmus Group LLC and ICF International, Inc. EPA 400-R-22-001. Available at: [https://www.epa.gov/system/files/documents/2022-05/EPAGreenPowerAccessAssessment-Dec2021\\_508.pdf](https://www.epa.gov/system/files/documents/2022-05/EPAGreenPowerAccessAssessment-Dec2021_508.pdf).

<sup>43</sup> Barbose, G. (Feb 2021). U.S. Renewables Portfolio Standards 2021 Status Update: Early Release. Lawrence Berkeley National Laboratory. Pg. 18. Available at: [https://eta-publications.lbl.gov/sites/default/files/rps\\_status\\_update-2021\\_early\\_release.pdf](https://eta-publications.lbl.gov/sites/default/files/rps_status_update-2021_early_release.pdf).

<sup>44</sup> Heeter, J. et al. (September 29, 2021). Status and Trends in the Voluntary Market (2020 data). National Renewable Energy Laboratory. Renewable Energy Markets Conference 2021. Pg. 5. Available at: <https://www.nrel.gov/docs/fy22osti/81141.pdf>.

<sup>45</sup> Heeter, J. et al. (September 29, 2021). Status and Trends in the Voluntary Market (2020 data). National Renewable Energy Laboratory. Renewable Energy Markets Conference 2021. Pg. 8 and 17. Available at: <https://www.nrel.gov/docs/fy22osti/81141.pdf>.

<sup>46</sup> US Energy Information Administration. Annual Energy Outlook 2022. Table: Table 16. Renewable Energy Generating Capacity and Generation. Available at: <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=16-AEO2022&cases=ref2022&sourcekey=0>.

### III.D. Independent Certification Programs

Our final set of concerns and recommendations is related to the effect of the Proposed Rules on private, voluntary standards and programs providing verification, certification, and consumer protection services for purchases and other activities that are directly reported under the Proposed Rules (e.g. renewable electricity procurement) and/or incorporated in GHG emissions calculations in Scopes 1, 2, or 3.

For example, the Green-e® programs (administered by Center for Resource Solutions) can be used by companies for third-party, independent certification of purchased renewable electricity and carbon offset products, including independent verification of renewable electricity, REC, and carbon credit transactions to substantiate renewable electricity and REC purchases, calculations of Scope 2 emissions, and purchases of carbon offsets that can be disclosed per the Proposed Rules. The Green-e® programs therefore complement the use of, but perhaps do not obviate the need for attestation standards to verify the accuracy of emissions calculations and other disclosures.

It is unclear if the Green-e® standards and certification programs, which are not equivalent to either the attestation standards (e.g. PCAOB, AICPA, and IASB) or the other verification standards (e.g. ISO 14064-3) explicitly referenced in the Proposed Rules, are relevant in the context of “due process procedures” referenced in the Proposed Rules, for example. The extent to which the Proposed Rules would subject CRS and the Green-e® programs to federal fraud enforcement or investigative activities by the SEC is also unclear.

#### *III.D.1. Recommendations and Requests Regarding Treatment of Independent Certification Programs*

- a. CRS requests that the SEC provide more information related to independent certification programs that may be used by reporting entities, their relevance in the context of “due process procedures” referenced in the Proposed Rules, and the extent to which these certification programs may be implicated in any fraud enforcement activities.

#### *III.D.2. Background on the Green-e® Programs*

##### III.D.2.a. Renewable Energy Certification and the Green-e® Energy Program

While states determine eligibility requirements for RPS programs—e.g. eligible fuel types, technologies, locations, and type of procurement (e.g. bundled vs. unbundled), as well as REC vintage and banking rules—and designated state agencies provide oversight and verification for these programs, voluntary markets for renewable energy are, for the most part, not regulated by governmental agencies. Rather,

private, third-party standards and certifications are used to verify delivery and ownership. In the United States, Green-e® Energy is the leading third-party certification for voluntary renewable energy.

First launched in 1997, the Green-e® Energy Standard<sup>47</sup> limits eligibility and sets rules in terms of resource type and generation technology, date of facility construction/operation, vintage of eligible sales, geographic sourcing requirements for specific product types, state-specific eligibility restrictions and additional obligations based on state policy to ensure eligible generation is surplus to what is required by law, and other sustainability and consumer protection criteria. The Standard is developed through an open stakeholder process and overseen by an independent Green-e® Governance Board<sup>48</sup>.

Green-e® Energy certified renewable energy products are sold by participating sellers in the following different options:

- Green Pricing Programs. Renewable electricity sold by electric utilities in regulated electricity markets, offered in addition to the renewable electricity included in standard electricity service. Includes Green Tariffs offered to larger commercial or industrial customers.
- Competitive Renewable Electricity. Similar to a green pricing program but sold by an electric service provider (ESP) in a deregulated electricity market.
- Unbundled RECs. The tradable, environmental attributes of one MWh of renewable electricity generation, sold separately from the underlying electricity. The REC product type includes PPAs and VPPAs for which only the REC portion of the purchase is certified.
- Community Choice Aggregation (CCA). Also known as Municipal Aggregation, CCAs allow cities and counties to aggregate customers in a regulated market within a defined jurisdiction to secure alternative electricity supply contracts on a community-wide basis.
- Direct and On-Site Certification. Direct Purchasing is a purchase made directly from renewable generators as an alternative to purchasing from a utility, competitive electricity supplier, or a renewable energy certificate marketer, while On-Site renewable energy is consumed at the same location where it is produced.

Certified products are required to undergo an independent annual audit of sales to demonstrate compliance with the Green-e® Energy Standard and Code of Conduct<sup>49</sup> and to verify transactions against retirement information in REC tracking systems. This ensures no double counting and exclusive sales and retail ownership of generation and attributes. The Green-e® Energy program also prevents instances of double claiming by verifying that there are no other renewable energy usage claims being

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<sup>47</sup> The latest version, the *Green-e® Renewable Energy Standard for Canada and the United States*, v3.5, is publicly available at: <https://www.green-e.org/programs/energy/documents>.

<sup>48</sup> The current list of members of the Green-e® Governance Board is available at: <https://www.green-e.org/who>.

<sup>49</sup> The latest version, the *Green-e® Energy Code of Conduct for Canada and the United States*, Updated December 15, 2020, is publicly available at: <https://www.green-e.org/programs/energy/documents>.

made on either the RECs or underlying electricity associated with certified sales. Sellers of certified renewable energy products are required to provide a verified Product Content Label with minimum information about the generation used and other terms, conditions, and disclosures related to the sale of certified products. Certified products must also undergo a Marketing Compliance Review of marketing materials to ensure truthful advertising.

In 2020, Green-e® Energy certified retail sales of over 90 million MWh, serving over 1.4 million retail purchasers including over 104,000 businesses. Nearly half of all installed wind capacity in the United States is supplying Green-e® certified transactions.<sup>50</sup> Green-e® Energy certifies renewable energy products that are available in all 50 states and the District of Columbia.

The consumer and quality assurances related to renewable electricity and REC procurement provided by the Green-e® Energy program are relevant to Disclosures Regarding Climate-Related Impacts on Strategy, Business Model, and Outlook (Sec. II.C of the Proposed Rules), particularly purchases and use of renewable electricity. To the extent that renewable electricity procurement is reflected in Scope 2 emissions calculations, Green-e® Energy certification provides assurances related to Scope 2 emissions calculations and reporting as well.

#### III.D.2.b. Carbon Offset Certification and the Green-e® Climate Program

The global voluntary market for carbon offsets includes several different private, voluntary carbon offset project verification standards and credit issuers, each with its own standards and credit registry.<sup>51</sup> While all credits represent one metric ton of verified GHG emissions reductions, and are therefore somewhat fungible in the global marketplace, there are separate submarkets for each standard's credit type.

These voluntary offset project standards and verification programs are designed to ensure valid, verified supply of real emissions reductions. They provide project-level assurances in the following five categories ("PAVER criteria").

- **Permanence:** Emissions reductions must last in perpetuity. They must either be irreversible or there must be a mechanism (e.g. insurance/buffer pool of credits) in place to ensure permanence.
- **Additionality:** Emissions reduction projects must be "beyond business as usual" or "additional" to what would have happened in a status quo or baseline scenario. Projects have to represent a change in behavior spurred by buyers in the offset market in order for buyers to claim a reduction. Project additionality must be proven through a series of credible tests.

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<sup>50</sup> For more information, please see the 2021 Green-e® Verification Report (2020 Data), available at: <https://resourcesolutions.org/g2021/>.

<sup>51</sup> For example, see the American Carbon Registry (ACR), the Climate Action Reserve (CAR), the Gold Standard Foundation, and Verra's Verified Carbon Standard (VCS).

- Verification: Emissions reductions and project performance must be monitored and independently verified.
- Enforceability: Transfer of emissions reductions must be backed by contracts or legal instruments that define their creation and ensure exclusive ownership.
- Real: Emissions reductions must not be artifacts of incomplete or technically flawed accounting.

The offset project standards and verification programs evaluate, register, and monitor offset projects for quality. They verify emissions reductions and issue credits to registered projects for verified emissions reductions, in units of metric tons of carbon dioxide-equivalent (MT CO<sub>2</sub>e). The credits are assigned unique serial numbers and tracked, transferred, and ultimately retired in electronic registry systems maintained by the project certifiers in cooperation with registry development and administration organizations.

These project standards do not, however, provide oversight or assurances related to retail sales of carbon offsets by offset retailers in the market, companies that buy credits wholesale to sell retail to businesses and individuals both inside and outside the registry. Since retail purchasers do not typically have accounts in the registry in which the credits are transacted and retired, offset retailers will simply retire credits on behalf of their customers to substantiate their customers' ownership of and claim to those credits. As a result, the registry has a limited ability to establish exclusive retail ownership for these sales.

The Green-e® Climate program is an independent, third-party retail standard and certification program for carbon offsets sold in the voluntary market. The stakeholder-driven Green-e® Climate Standard<sup>52</sup> includes eligibility requirements for emissions reductions and carbon credits that can be used as supply in certified offset products. Green-e® Climate certified carbon offset products are required to undergo an independent annual audit of sales to demonstrate compliance with the Green-e® Climate Standard and Code of Conduct<sup>53</sup> and to verify transactions against retirement information in endorsed carbon credit registries.<sup>54</sup> Sellers of Green-e® Climate certified offsets are required to provide a verified Product Content Label with minimum information about the projects, project standards, and emissions reductions used and other terms, conditions, and disclosures related to the sale of certified products. Certified products must also undergo a Marketing Compliance Review of marketing materials to ensure truthful advertising. In all, Green-e® Climate certified offsets are emissions reductions that have been issued by an endorsed offset project standard, the sale and marketing of which has met

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<sup>52</sup> The latest version, the *Green-e® Climate Standard v2.1*, is publicly available at: <https://www.green-e.org/programs/climate/documents>.

<sup>53</sup> The latest version, the *Green-e® Climate Code of Conduct v7.0*, is publicly available at: <https://www.green-e.org/programs/climate/documents>.

<sup>54</sup> See a current list of Green-e® Climate Endorsed Programs at: <https://www.green-e.org/programs/climate/endorsed-programs>.

marketing and disclosure requirements, and the exclusive and accurate delivery of which has been independently verified to prohibit double selling.

In 2020, the Green-e® Climate program certified more than 598,700 MT CO<sub>2</sub>e.<sup>55</sup>

The consumer and quality assurances related to carbon offset purchases provided by the Green-e® Climate program are relevant to Disclosures Regarding Climate-Related Impacts on Strategy, Business Model, and Outlook (Sec. II.C of the Proposed Rules), particularly Disclosure of Carbon Offsets used (Sec. II.C.2).

#### **IV. Responses to Requests for Comment in the Proposed Rules**

*24. If a registrant has used carbon offsets or RECs, should we require the registrant to disclose the role that the offsets or RECs play in its overall strategy to reduce its net carbon emissions, as proposed? Should the proposed definitions of carbon offsets and RECs be clarified or expanded in any way? Are there specific considerations about the use of carbon offsets or RECs that we should require to be disclosed in a registrant's discussion regarding how climate-related factors have impacted its strategy, business model, and outlook?*

See Sec. III.B of these comments above (Sec. III.B.1 for recommendations). The role of RECs, as distinct from offsets, is clarified above. RECs are required for all renewable electricity purchased, used, and disclosed by the company, regardless of how it was purchased. RECs are also required for all renewable electricity generation used for Scope 2 emissions calculations. Renewable electricity purchases and use should not be disclosed if associated RECs are not owned and retired by or on behalf of the company (or a group including the company). Market-based Scope 2 emissions should not be calculated using the emissions associated with renewable electricity generation unless the associated RECs are owned and retired by or on behalf of the company (or a group including the company). RECs are not used for net adjustments to emissions, but rather for gross Scope 2 emissions calculations. Registrants should disclose purchases and use of renewable electricity (for which RECs have been retired by them or on their behalf) and carbon offsets as a part of a strategy to reduce emissions. Suggested revisions to the REC definition are proposed above. Renewable electricity procurement/product type can be disclosed, based on the typifications included in the *Guide to Purchasing Green Power*.<sup>56</sup> See our suggested revisions to Discussion/Preamble Sec. II.C.2 of the Proposed Rules (Appendix A). See recommended revisions to Sec. 229.1506 of the Proposed Rules in Sec. III.B.1 of these comments above. Resource type and facility age of renewable electricity

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<sup>55</sup> For more information, please see the 2021 Green-e® Verification Report (2020 Data), available at: <https://resourcesolutions.org/g2021/>.

<sup>56</sup> US EPA, US DOE, WRI, CRS, NREL. (September 2018). *Guide to Purchasing Green Power: Renewable Electricity, Renewable Energy Certificates, and On-Site Renewable Generation*. U.S. EPA. Office of Air (6202J) EPA430-K-04-015. Available at <https://www.epa.gov/greenpower/guide-purchasing-green-power>.

should be disclosed. Green-e® certification of renewable electricity purchased can be disclosed. Offset verification standard and project type should be disclosed. Green-e® certification of carbon offsets purchased and retail provider can be disclosed.

*97. Should we require a registrant to disclose its total Scope 1 emissions and total Scope 2 emissions separately for its most recently completed fiscal year, as proposed? Are there other approaches that we should consider?*

Yes, Scope 1 emissions and total Scope 2 emissions should be reported separately. The SEC could provide flexibility to allow emissions reporting for the most recently completed calendar year, as an alternative to fiscal year, which would be consistent with certain existing voluntary renewable energy and GHG reporting platforms. See Sec. III.C of these comments above for considerations related to the Scope 2 emissions reporting methodology.

*101. Should we require a registrant to exclude any use of purchased or generated offsets when disclosing its Scope 1, Scope 2, and Scope 3 emissions, as proposed? Should we require a registrant to disclose both a total amount with, and a total amount without, the use of offsets for each scope of emissions?*

Yes, companies should report net total GHG emissions that include purchases and sales of carbon offsets separately from gross Scope 1, 2, and 3 emissions that do not include purchases and sales of offsets. While gross Scope 1, 2, and 3 emissions should be disclosed separately, it is not necessary to require registrants to disclose net Scope 1, 2, and 3 emissions separately or to identify the scope of emissions to which carbon offsets are applied. That is, they can apply purchased offsets to their total footprint in order to calculate a net emissions total. Companies should report details about offset purchases, as recommended in Sec. III.B.1 of these comments above.

*105. Should we require the calculation of a registrant's Scope 1, Scope 2, and/or Scope 3 emissions to be as of its fiscal year end, as proposed? Should we instead allow a registrant to provide its GHG emissions disclosures according to a different timeline than the timeline for its Exchange Act annual report? If so, what should that timeline be? or example, should we allow a registrant to calculate its Scope 1, Scope 2, and/or Scope 3 emissions for a 12-month period ending on the latest practicable date in its fiscal year that is no earlier than three months or, alternatively, six months prior to the end of its fiscal year? Would allowing for an earlier calculation date alleviate burdens on a registrant without compromising the value of the disclosure? Should we allow such an earlier calculation date only for a registrant's Scope 3 emissions? Would the fiscal year end calculations required for a registrant to determine if Scope 3 emissions are material eliminate the benefits of an earlier calculation date? Should we instead require a registrant to provide its GHG emissions disclosures for its most recently*

*completed fiscal year one, two, or three months after the due date for its Exchange Act annual report in an amendment to that report?*

See our response to Question 97 above.

*109. Should we require a registrant to disclose the intensity of its GHG emissions for the fiscal year, with separate calculations for (i) the sum of Scope 1 and Scope 2 emissions and, if applicable (ii) its Scope 3 emissions (separately from Scopes 1 and 2), as proposed? Should we define GHG intensity, as proposed? Is there a different definition we should use for this purpose?*

CRS generally supports the requirement to disclose GHG intensity, for the reasons noted on pg. 21382 of the Proposed Rules. We also generally support the SEC's proposed definition of GHG intensity.

*115. Should we require a registrant to disclose the methodology, significant inputs, and significant assumptions used to calculate its GHG emissions metrics, as proposed? Should we require a registrant to use a particular methodology for determining its GHG emission metrics? If so, should the required methodology be pursuant to the GHG Protocol's Corporate Accounting and Reporting Standard and related standards and guidance? Is there another methodology that we should require a registrant to follow when determining its GHG emissions? Should we base our climate disclosure rules on certain concepts developed by the GHG Protocol without requiring a registrant to follow the GHG Protocol in all respects, as proposed? Would this provide flexibility for registrants to choose certain methods and approaches in connection with GHG emissions determination that meet the particular circumstances of their industry or business or that emerge along with developments in GHG emissions methodology as long as they are transparent about the methods and underlying assumptions used? Are there adjustments that should be made to the proposed methodology disclosure requirements that would provide flexibility for registrants while providing sufficient comparability for investors?*

See Sec. III.C of these comments above (Sec. III.C.1 for recommendations). In general, registrants should disclose their GHG emissions calculation methodologies, inputs and assumptions. All registrants should be required to use a market-based accounting method for Scope 2 emissions calculations as described and recommended above, for the reasons provided above. This is consistent with the current 2015 GHG Protocol Scope 2 Guidance.<sup>57</sup> Alternative methodologies, in absence of a market-based Scope 2 emissions total, should not be permitted, and neither should the SEC set limitations on or additional criteria for market-based Scope 2 calculations. See Sec. III.C.2.f and III.C.2.g of these comments above. By requiring market-based accounting, as recommended, the SEC need not entirely reproduce the GHG Protocol Scope 2 Guidance or

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<sup>57</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 59. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf).



necessarily set standards for market-based electricity data or instruments. However, the SEC can and should require that data used for Scope 2 accounting generally reflect exclusive ownership of generation attributes, as recommended. The SEC need only require that the most precise and highest quality data available was used, as recommended. See Sec. III.C.2.e of these comments above.

*135. Should we require accelerated filers and large accelerated filers to obtain an attestation report covering their Scope 1 and Scope 2 emissions disclosure, as proposed? Should we require accelerated filers and large accelerated filers to obtain an attestation report covering other aspects of their climate-related disclosures beyond Scope 1 and 2 emissions? For example, should we also require the attestation of GHG intensity metrics, or of Scope 3 emissions, if disclosed? Conversely, should we require accelerated filers and large accelerated filers to obtain assurance covering only Scope 1 emissions disclosure? Should any voluntary assurance obtained by these filers after limited assurance is required be required to follow the same attestation requirements of Item 1505(b)–(d), as proposed?*

CRS generally supports the attestation requirement as proposed. We have questions about the relevance of attestation to existing private, independent certification and verification programs serving different markets and products that could inform disclosures, and the role of those programs in the attestation process. See Sec. III.D of these comments (Sec. III.D.1 for requests for more information).

*154. Should we require the attestation engagement and related attestation report to be provided pursuant to standards that are publicly available at no cost and are established by a body or group that has followed due process procedures, including the broad distribution of the framework for public comment, as proposed? Is the requirement of “due process procedures, including the broad distribution of the framework for public comment” sufficiently clear? Would the attestation standards of the PCAOB, AICPA, and IAASB meet this due process requirement? Are there other standards currently used in the voluntary climate-related assurance market or otherwise in development that would meet the due process and publicly availability requirements? For example, would verification standards commonly used by non-accountants currently, such as ISO 14064-3 and the AccountAbility's AA1000 Series of Standards, meet the proposed requirements? Are there standards currently used in the voluntary climate-related assurance market or otherwise under development that would be appropriate for use under the Commission's climate-related disclosure rules although they may not strictly meet the proposed public comment requirement? If so, please explain whether those standards have other characteristics that would serve to protect investors?*

See Sec. III.D of these comments above. It is unclear if Green-e® standards and certification programs, which are not equivalent to either the attestation standards (e.g. PCAOB, AICPA, and IAASB) or the other verification standards (e.g. ISO 14064-3) referenced in the Proposed Rules, are

relevant to or would be affected by “due process procedures” referenced in the Proposed Rules. We request further explanation. The Green-e® programs can be used to provide third-party independent certification of renewable energy and carbon offset products purchased by reporting entities, including independent verification of renewable energy, REC, and carbon credit transactions to substantiate renewable electricity and REC purchases, calculations of Scope 2 emissions, and purchases of carbon offsets that can be disclosed. The Green-e® programs therefore complement the use of, but do not obviate the need for attestation standards to verify the accuracy of emissions calculations and other disclosures.

*159. If we require or permit a registrant to use the GHG Protocol as the methodology for determining GHG emissions, would the provisions of the GHG Protocol qualify as “suitable criteria” against which the Scope 1 and Scope 2 emissions disclosure should be evaluated?*

See Sec. III.C of these comments above (Sec. III.C.1 for recommendations). With specific regard to Scope 2 emissions, it would not be sufficient for the SEC to simply require registrants to report Scope 2 emissions in accordance with the GHG Protocol. While the 2015 Scope 2 Guidance requires use of the market-based method for electricity consumption in the United States,<sup>58</sup> this guidance may change independently in ways that cannot be controlled by the SEC as a result of the GHG Protocol’s own standard development process. Therefore, the SEC should ensure that Scope 2 emissions accounting and reporting is market-based, as recommended and explained further above. All registrants should be required to use a market-based accounting method for Scope 2 emissions calculations as described and recommended above, (See Sec. III.C.1), and consistent with the 2015 GHG Protocol Scope 2 Guidance. In general, the market-based methodology for Scope 2 accounting as found in 2015 GHG Protocol Scope 2 Guidance would qualify as suitable criteria against which Scope 2 emissions disclosure should be evaluated. See Sec. III.C.2.e of these comments above for market-based data considerations for the SEC.

*161. Should we require the registrant to disclose whether the attestation provider has a license from any licensing or accreditation body to provide assurance, and if so, the identity of the licensing or accreditation body, and whether the attestation provider is a member in good standing of that licensing or accreditation body, as proposed? In lieu of disclosure, should we require a GHG emissions attestation provider to be licensed to provide assurance by specified licensing or accreditation bodies? If so, which licensing or accreditation bodies should we specify?*

See our response to Question 154 above.

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<sup>58</sup> Sotos, M. (2015). GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute. Pg. 59. [https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf)

170. Should we require a registrant to discuss how it intends to meet its climate-related targets or goals, as proposed? Should we provide examples of potential items of discussion about a target or goal regarding GHG emissions reduction, such as a strategy to increase energy efficiency, a transition to lower carbon products, purchasing carbon offsets or RECs, or engaging in carbon removal and carbon storage, as proposed? Should we provide additional examples of items of discussion about climate-related targets or goals and, if so, what items should we add? Should we remove any of the proposed examples of items of discussion?

See Sec. III.B of these comments above. Also see our attached suggested revisions to Discussion/Preamble Sec. II.C.2 of the Proposed Rules (Appendix A).

173. If a registrant has used carbon offsets or RECs, should we require the registrant to disclose the amount of carbon reduction represented by the offsets or the amount of generated renewable energy represented by the RECs, the source of the offsets or RECs, the nature and location of the underlying projects, any registries or other authentication of the offsets or RECs, and the cost of the offsets or RECs, as proposed? Are there other items of information about carbon offsets or RECs that we should specifically require to be disclosed when a registrant describes its targets or goals and the related use of offsets or RECs? Are there proposed items of information that we should exclude from the required disclosure about offsets and RECs?

See Sec. III.B of these comments above (Sec. III.B.1 for recommendations, including recommended revisions to proposed Sec. 229.1506). In general, yes, registrants should disclose the amount of offsets purchased and sold, the seller of offsets, the project standard used, the project types, the location of projects, the vintage of the reductions, and any retail offset product or sales certification associated with the offset transaction. Registrants should also disclose the amount of renewable electricity generation used or procured, the resource/fuel type, the location of the generation, the age of the generating facilities, the vintage of the generation, the procurement method, the purchase term length, the name of the supplier, purchasing platform if applicable, and any certifications or standards associated with the renewable energy product or transaction. Registrants should only report renewable electricity use and procurement (both as a mitigation strategy and as reflected in Scope 2 emissions calculations) if the associated RECs have been retired by or on behalf of the registrant.

Please let me know if we can provide any further information or answer any other questions.

Sincerely,

\_\_\_\_\_/s/\_\_\_\_

Todd Jones

Director, Policy

## Appendix A. CRS Suggested Edits to Discussion/Preamble Sec. II.C.2

### **2. Disclosure of Carbon Offsets or Renewable Energy Credits If Used Electricity Procurement**

If, as part of its net plan to achieve climate-related targets or goals-emissions-reduction-strategy, a registrant uses-procures-renewable-electricity-or-carbon-offsets-or-renewable-energy-credits-or-certificates (“RECs”), the proposed rules would require it to disclose the role that renewable electricity procurement and/or carbon offsets or RECs play in the registrant’s climate-related business strategy.<sup>59</sup> Under the proposed rules, carbon offsets represent an emissions reduction or removal of greenhouse gases in a manner calculated and traced for the purpose of offsetting an entity’s GHG emissions.<sup>60</sup> We are proposing to define a REC, consistent with the EPA’s commonly used definition, to mean a credit or certificate representing each purchased megawatt-hour (1 MWh or 1000 kilowatt-hours) of renewable electricity generated and delivered to a registrant’s power grid.<sup>61</sup> While both renewable electricity procurement and carbon offsets purchasing and RECs represent commonly used GHG emissions mitigation options for companies, they are different activities and they are accounted for differently used for somewhat different purposes.<sup>62</sup>

Renewable electricity may be self-generated (e.g. using onsite solar or other renewable energy generation equipment) or procured from a retail electricity supplier (e.g. an electric utility or competitive supplier) through a “green tariff” or “green pricing” program, procured directly from a renewable energy generator using a power purchase agreement (PPA) or from a community renewable energy project, depending on the options available to them at different locations. Companies may also directly purchase renewable energy credits or certificates (“RECs”) separately from electricity (e.g. “unbundled RECs,” or Virtual PPA) to pair with electricity consumption.<sup>63</sup> Renewable electricity procurement using any of these procurement options can reduce a company’s gross indirect GHG emissions associated with purchased electricity (i.e., Scope 2 emissions) by verifying the use of zero- or low-emissions renewable sources of electricity.

All disclosed renewable electricity procurement, using any procurement option, must be substantiated with retirement of associated RECs by or on behalf of the registrant for renewable energy resources

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<sup>59</sup> See proposed 17 CFR 229.1502(c).

<sup>60</sup> See proposed 17 CFR 229.1500(a).

<sup>61</sup> See proposed 17 CFR 229.1500(n). See, e.g., EPA, *Offsets and RECs: What’s the Difference?*, available at [https://www.epa.gov/sites/default/files/2018-03/documents/gpp\\_guide\\_recs\\_offsets.pdf](https://www.epa.gov/sites/default/files/2018-03/documents/gpp_guide_recs_offsets.pdf).

<sup>62</sup> A company may purchase carbon offsets to address its direct and indirect GHG emissions (i.e., its Scopes 1, 2, and 3 emissions) by verifying global emissions reductions at additional, external projects. The reduction in GHG emissions from one place (“offset project”) can be used to “offset” the emissions taking place somewhere else (at the company’s operations). See, e.g., EPA, *Offsets and RECs: What’s the Difference?*, available at [https://www.epa.gov/sites/default/files/2018-03/documents/gpp\\_guide\\_recs\\_offsets.pdf](https://www.epa.gov/sites/default/files/2018-03/documents/gpp_guide_recs_offsets.pdf). In contrast, a company may purchase a REC in renewable electricity markets solely to address its indirect GHG emissions associated with purchased electricity (i.e., Scope 2 emissions) by verifying the use of zero- or low-emissions renewable sources of electricity. Each REC provides its owner exclusive rights to the attributes of one megawatt-hour of renewable electricity whether that renewable electricity has been installed on the company’s facilities or produced elsewhere. See *id.*

<sup>63</sup> For a description of these and other renewable electricity procurement options, see US EPA, US DOE, WRI, CRS, NREL, (September 2018). *Guide to Purchasing Green Power: Renewable Electricity, Renewable Energy Certificates, and On-Site Renewable Generation*. U.S. EPA, Office of Air (6202J) EPA430-K-04-015. Available at <https://www.epa.gov/greenpower/guide-purchasing-green-power>.

that are registered in a regional renewable energy or generation attribute tracking system, or with contractual transfer and/or exclusive ownership and retention of all associated environmental attributes by the registrant for renewable energy resources that are not registered in a regional renewable energy or generation attribute tracking system. We are proposing to define a REC, consistent with the EPA's commonly used definition,<sup>64</sup> such that each REC provides its owner exclusive rights to the attributes of one megawatt-hour of renewable electricity whether that renewable electricity has been installed on the company's facilities or produced elsewhere.<sup>65</sup>

Companies may similarly procure non-renewable but low- or non-emitting or other specified electricity<sup>66</sup> (e.g. nuclear, gas) to achieve climate-related targets or goals. Similar supply options (e.g. PPAs, utility products or portfolio mixes) may be available to companies in certain regions. This electricity procurement can similarly reduce a company's gross Scope 2 emissions.

Under the proposed rules, carbon offsets represent an emissions reduction or removal of greenhouse gases in a manner calculated and traced for the purpose of offsetting an entity's GHG emissions.<sup>67</sup> A company may purchase carbon offsets to address its direct and indirect GHG emissions (i.e., its Scopes 1, 2, and 3 emissions) by verifying global emissions reductions at additional, external projects. The reduction in GHG emissions from one place ("offset project") can be used to "offset" the emissions taking place somewhere else (at the company's operations).<sup>68</sup> Offsets are therefore used for net adjustments to gross emissions and specifically to achieve net emissions reductions targets or goals.

Some registrants might plan to use renewable (and other low- or non-emitting) electricity procurement or carbon offsets or RECs as their primary means of meeting their GHG reduction goals, including those formulated in response to government law or policy or customer or investor demands. Other registrants, including those that set Science Based Targets pursuant to the Science Based Targets Initiative,<sup>69</sup> might develop strategies to reduce their emissions to the extent possible through operational changes—such as modifications to their product offerings or the development of solar or other renewable energy sources. They then might plan to use renewable electricity procurement to

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<sup>64</sup> See proposed 17 CFR 229.1500(n). See, e.g., EPA, *Offsets and RECs: What's the Difference?*, available at [https://www.epa.gov/sites/default/files/2018-03/documents/gpp\\_guide\\_recs\\_offsets.pdf](https://www.epa.gov/sites/default/files/2018-03/documents/gpp_guide_recs_offsets.pdf).

<sup>65</sup> See EPA, *Offsets and RECs: What's the Difference?*, available at [https://www.epa.gov/sites/default/files/2018-03/documents/gpp\\_guide\\_recs\\_offsets.pdf](https://www.epa.gov/sites/default/files/2018-03/documents/gpp_guide_recs_offsets.pdf).

<sup>66</sup> In regions where generation/energy attribute certificates are created for and issued to non-renewable resource types (or all generation), they, like RECs, must be retired by or on behalf of the registrant (or a group including the registrant) to verify its exclusive use of specified generation.

<sup>67</sup> See proposed 17 CFR 229.1500(a).

<sup>68</sup> See, e.g., EPA, *Offsets and RECs: What's the Difference?*, available at [https://www.epa.gov/sites/default/files/2018-03/documents/gpp\\_guide\\_recs\\_offsets.pdf](https://www.epa.gov/sites/default/files/2018-03/documents/gpp_guide_recs_offsets.pdf).

<sup>69</sup> Science Based Targets Initiative ("SBTi") is a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF), which defines and promotes best practice in emissions reductions and net-zero targets in line with climate science. SBTi provides technical assistance and its expertise to companies who voluntarily set science-based targets in line with the latest climate science. See SBTi, *Who We Are/What We Do*, available at <https://sciencebasedtargets.org/about-us#who-we-are>. The SBTi does not permit offsets to be counted toward a company's emission reduction targets to meet its science-based targets but does permit offsets by companies that wish to finance additional emission reductions beyond their science-based targets. See *SBTi Criteria and Recommendations* (Apr. 2020), available at <https://sciencebasedtargets.org/resources/legacy/2019/03/SBTi-criteria.pdf>.

address the remainder of scope 2 emissions and/or carbon offsets ~~or RECs~~ to offset the remainder of their other emissions that they cannot reduce through operational changes or to meet their GHG reduction goals while they transition to lower carbon operations.

Understanding the role that renewable electricity and carbon offsets ~~or RECs~~ play in a registrant's climate-related business strategy can help investors gain useful information about the registrant's strategy, including the potential risks and financial impacts. For example, a ~~A~~ registrant that relies on carbon offsets ~~or RECs~~ to meet its goals might incur lower expenses in the short term but could expect to continue to incur the expense of purchasing offsets ~~or RECs~~ over the long term. It also could bear the risk of increased costs of offsets ~~or RECs~~ if increased demand for offsets ~~or RECs~~ creates scarcity and higher costs to acquire them over time. Alternatively, the value of an offset may decrease substantially and suddenly if, for example, the offset represents protected forest land that burns in a wildfire and no longer represents a reduction in GHG emissions. In that case, the registrant may need to write off the offset and purchase a replacement. Different renewable electricity procurement options will also provide different degrees of cost savings or added expense to registrants over the short- or long-term. ~~In other cases, increased demand for, or scarcity of, offsets and RECs may benefit a registrant that produces or generates offsets or RECs to the extent their prices increase.[1]~~ Accordingly, under the proposed rules, a registrant that purchases offsets or ~~RECs~~ renewable electricity to meet its goals ~~as it makes the transition to lower carbon products~~ would need to reflect this additional set of short and long-term costs and risks in its Item 1502 disclosure, including the risk that the availability or value of offsets or ~~RECs~~ renewable electricity product might be curtailed by regulation or changes in the market.

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[1] Companies that generate and sell RECs or offsets cannot claim renewable electricity use or net emissions reductions, respectively. As a result, the company should not report in climate-related disclosures renewable electricity procurement or associated scope 2 reductions where associated RECs have been sold, and it should report an increase in net emissions for all offsets sold, regardless of any revenue from these sales, which may be reported in other non-climate-related disclosures.