

June 11, 2021

Chair Gary Gensler
U.S. Securities and Exchange Commission
100 F St NE
Washington, DC 20549

Re: Public Input Welcomed on Climate Change Disclosures
Submitted via email: rule-comments@sec.gov

Dear Chair Gensler,

Thank you for the opportunity to comment on Acting Chair Allison Herren Lee's questions dated March 15, 2021 concerning additional climate disclosure requirements and frameworks.¹ My comments are generally directed to the subject ("comments generally as to how the Commission can best regulated climate change disclosures are welcomed"), however they also speak to issues raised in Questions 2-4, 9, 10, and 13.

As noted by others, the Securities and Exchange Commission (SEC) already requires companies to disclose material climate information.² The SEC should not use climate change or executive order as occasions to significantly alter or expand the definition of "material" information that must be disclosed, as both the Commission's questions for comment and previous Commissioner comments on the topic suggest is being considered.³ The historical and legal definition of "material" information as reinforced by the Supreme Court has served Americans well as part of the fabric of free enterprise by which Americans have thrived, innovated, and held each other accountable for centuries.⁴ To use climate change as a proxy for deeper philosophical economic change is well outside the mission of the SEC.

Additional disclosure of financial impacts of climate change required by the SEC also raises at least several problems and unintended consequences. This comment briefly offers three such issues which deserve the Commission's consideration.

¹ Acting Chair Allison Herren Lee, "Public Input Welcomed on Climate Risk Disclosures," U.S. Securities and Exchange Commission, March 15, 2021, <https://www.sec.gov/news/public-statement/lee-climate-change-disclosures>.

² Senator Pat Toomey, et al, letter to John F. Kerry, Special Presidential Envoy for Climate, April 20, 2021, https://www.banking.senate.gov/imo/media/doc/toomey_gop_members_letter_to_kerry.pdf.

³ See for example, Allison Herren Lee, "A Climate for Change: Meeting Investor Demand for Climate and ESG Information at the SEC," U.S. Securities and Exchange Commission, March 15, 2021, <https://www.sec.gov/news/speech/lee-climate-change>. See also, "Executive Order on Climate-Related Financial Risk," May 20, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/05/20/executive-order-on-climate-related-financial-risk/>.

⁴ See forthcoming paper, Norbert J. Michel, David R. Burton, and Nicolas Loris, "Financial Regulation and Climate Change," Heritage Foundation *Backgrounder*. 17 CFR § 240.12b-2 states, "Material. The term "material," when used to qualify a requirement for the furnishing of information as to any subject, limits the information required to those matters to which there is a substantial likelihood that a reasonable investor would attach importance in determining whether to buy or sell the securities registered."

1. Consider potential unintended consequences impacting energy markets and transitions in energy use. The Biden administration has committed the U.S. to reduce greenhouse gases 50 percent to 52 percent by 2030 (compared to 2005 levels), and set a goal of making the U.S. a “net-zero emissions economy by no later than 2050.”⁵ Neither objective is congressionally sanctioned, leaving them open to either rejection through a law of Congress or reinterpretation by a future administration.

Even so, there are uncertainties and challenges to achieving such objectives for which further SEC interference in financial markets could have unintended consequences. Fossil fuels provide 80 percent of Americans’ total energy use and 84 percent of global energy use.⁶ The International Energy Agency recently published data showing a “looming mismatch between the world’s strengthened climate ambitions and the availability of critical minerals that are essential to realising those ambitions.”⁷ Existing state and federal regulatory and permitting requirements for clean energy infrastructure do not allow for timely deployment to meet political timelines.⁸ Additionally, some energy technologies to support a zero-emissions economy do not yet exist to scale, at affordable costs, or at all (for example, affordable, large-scale energy storage).

Given these and other substantial limitations, Secretary of Energy Jennifer Granholm has acknowledged “in our position as a global supplier of crude oil and natural gas and other forms of energy, that traditional fossil energy is going to remain important, even as we work to reduce carbon emissions. Our allies and trading partners, they’re still going to need to power their homes and businesses.”⁹

Restricting access to capital for heretofore legal and legitimate carbon-intensive companies that currently support the vast majority of goods and services in the US could create brittleness in the economy’s transition (whether by mandate or voluntary consumer demand) to a different energy

⁵United States of America, Nationally Determined Contribution, April 21, 2021, <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/United%20States%20of%20America%20First/United%20States%20NDC%20April%202021%20Final.pdf>. See also, “Executive Order on Climate-Related Financial Risk.”

⁶ U.S. Energy Information Administration, “U.S. Energy Facts Explained,” May 14, 2021, <https://www.eia.gov/energyexplained/us-energy-facts/>. BP, “Statistical Review of World Energy 2020,” June 2020, <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2020-full-report.pdf>.

⁷ International Energy Agency, “Clean Energy Demand for Critical Minerals Set to Soar as the World Pursues Net Zero Goals,” Press Release, May 5, 2021, <https://www.iea.org/news/clean-energy-demand-for-critical-minerals-set-to-soar-as-the-world-pursues-net-zero-goals>. International Energy Agency, “The Role of Critical Minerals in Clean Energy,” 2021, <https://iea.blob.core.windows.net/assets/24d5dfbb-a77a-4647-abcc-667867207f74/TheRoleofCriticalMineralsinCleanEnergyTransitions.pdf>.

⁸ For example, the TransWest Express Transmission Projects connecting wind turbines in Wyoming to Arizona, Nevada, and California began in 2007 and is still awaiting its final “notice to proceed” after over 13 years of studies, surveys, route siting, hearings, easement and rights of way approvals, state and county permits, and approvals from the federal Bureau of Land Management, Bureau of Reclamation, Forest Service, and Federal Energy Regulatory Commission. TransWest Express, LLC, “Schedule and Timeline,” <http://www.transwestexpress.net/about/timeline.shtml>.

⁹ Renee Jean, “Biden’s Energy Secretary Affirms There Is A Future for the Oil and Gas Industry in a Low-Carbon World,” *Williston Herald*, May 19, 2021, https://www.willistonherald.com/news/oil_and_energy/bidens-energy-secretary-affirms-there-is-a-future-for-the-oil-and-gas-industry-in/article_0203c7a8-b4cf-11eb-9200-e36c21ddf8a1.html.

future. An arbitrarily inflexible financial system will only exacerbate disruption and costs. It could also work contrary to the administration's objective (please see Point 2c).

2. Consider the complexities of additional disclosure requirements. Approaches to additional climate disclosure requirements present new challenges that the SEC is likely not equipped to navigate.

a) Climate models, upon which financial risk assessments are based, are not yet robust enough to support significant economic policy decisions. Climate-related financial risk assessments rely on climate models or “ensembles” of models to inform their probabilities of temperature and precipitation changes and related predictions of risk for client companies.¹⁰ A foundational resource is the U.N. Intergovernmental Panel on Climate Change's (IPCC) Coupled Model Intercomparison Project phase 5 (CMIP5) ensemble used for the IPCC's Fifth Assessment Report (AR5), and CMIP6 which will be used in the forthcoming Sixth Assessment Report. However, there are significant uncertainties with these models which deeply compromise their use as predictive tools for assessing financial risk. Because there are significant points of disagreement amongst climate models (for example, in modeling the effects of cloud cover and aerosols), the IPCC has averaged their results in sequential CMIP phases to inform its reports. The IPCC has noted some of the problems with CMIP5, such that it “cannot be taken as a reliability regional probability forecast.”¹¹ The models in CMIP6 appear not to have reduced uncertainty across models, but rather increased it even as models have become more sophisticated.¹²

Thus far, models have been unable to faithfully replicate observed historical data, reducing confidence in their ability to accurately project future conditions. Noting these deficiencies is not to dismiss climate modeling, but rather to point out how much more work needs to be done to improve them as useful tools. It would be far more prudent for the SEC to allow the scientific community and private sector to continue working out these issues.

¹⁰ See for example, Jupiter Intelligence, which uses CMIP6. Megan Purdy, “Jupiter and CMIP6: Unlocking the Next Generation of Global Climate Models,” November 10, 2020, Medium.com, <https://medium.com/jupiterintel/jupiter-and-cmip6-unlocking-the-next-generation-of-global-climate-models-5621f1c3d129>. BlackRock's recent financial risk report relies on a 2016 study in the *Journal of Applied Meteorology and Climatology* incorporating CMIP5 to assess climate impacts. BlackRock Investment Institute, “Getting Physical: Scenario Analysis for Assessing Climate-Related Risks,” April 4, 2019, <https://www.blackrock.com/ch/individual/en/insights/physical-climate-risks>. D.J. Rasmussen, Malte Meinshausen, and Robert E. Kopp, “Probability-Weighted Ensembles of U.S. County-Level Climate Projections for Climate Risk Analysis,” *Journal of Applied Meteorology and Climatology*, Vol. 55, No. 10 (October 1, 2016), pp. 2301-2322, <https://journals.ametsoc.org/view/journals/apme/55/10/jamc-d-15-0302.1.xml>.

¹¹ Working Group I, “Climate Change 2013: The Physical Science Basis,” in *Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, (Cambridge University Press: New York), 2013, p.1013, https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf. Others also have noted that “the spread of the CMIP5 ensemble in the years after 1960 is larger than that of the models in CMIP3 – in other words, the later generation of models is actually *more* uncertain than the earlier one.” Steven E. Koonin, *Unsettled*, (BenBella Books: Dallas), 2021, p.87.

¹² Nic Lewis, “Compensation Between Cloud Feedback + ECS and Aerosol-Cloud Forcing in CMIP6 Models,” Climate Etc., March 5, 2021, <https://judithcurry.com/2021/03/05/compensation-between-cloud-feedback-ecs-and-aerosol-cloud-forcing-in-cmip6-models/>. Discussing a 2021 paper in *Geophysical Research Letters* of the same title by Chenggong Wang, Brian J. Soden, Wenchang Yang, and Gabriel A. Vecchi.

It also would behoove the SEC to take note of the challenges faced by other sectors to incorporate climate modeling into their processes. The electric grid is one such example. Like the financial sector, the electricity sector is critical to Americans' wellbeing and way of life, but unlike the financial sector, it also has a far clearer connection to climate-related emissions and risks. The stability of the grid is sensitive to weather, making longer term climate trends important for making investments to harden infrastructure, developing standards for grid reliability, and monitoring market operations. The failure or inability of grid operators, regulators, and providers to plan adequately can have substantial costs as has been seen around the country, as has been the case in the northeast, California, and Texas in the recent past. Yet grid operators, regulators, and providers alike have all struggled to incorporate climate projections into their plans.¹³ The challenge to do so would be even greater for the SEC, whose mission is far less acutely related to climate related emissions and risks.

A related concern with using climate models is the potential that an "echo chamber" may be developing between a small group of government officials and former government officials now leading climate financial risk businesses.¹⁴ While not necessarily unethical, it does require the SEC to question whether it is reinforcing a self-fulfilling prophecy.

b) A financial taxonomy system to capture supposed climate-strategic investments is highly political and well outside the mission of the SEC to determine without significant input from Congress. The European Union has spent the last several years debating and developing its Sustainable Finance Taxonomy Regulation to establish "criteria for determining whether an economic activity qualifies as environmentally sustainable."¹⁵ A particularly contentious issue was the treatment of nuclear power in the taxonomy, where countries like France have adamantly argued for nuclear power's categorization as an "environmentally sustainable investment" meeting the objectives of the Paris Agreement and Germany has argued just as adamantly in opposition. One could imagine a similar scenario in the US, where states like Illinois and Pennsylvania are deeply committed to using nuclear power even as 14 states restrict the building of new nuclear plants and the governments of California and New York have forced the closure of certain nuclear reactors. The SEC does not have authority to make such value judgments in developing a taxonomy framework.

c) Requiring public companies to report emissions begs questions about scope. While it may be relatively straightforward to understand the greenhouse gas (GHG) emissions of, say, a stationary power plant, it is much harder to understand emissions from a variety of other goods,

¹³ "The Reliability, Resiliency, and Affordability of Electric Service," Committee on Energy and Natural Resources, U.S. Senate, March 11, 2021, <https://www.energy.senate.gov/hearings/2021/3/full-committee-hearing-on-the-reliability-resiliency-and-affordability-of-electric-service>. "Lessons Learned from the Texas Blackouts: Research Needs for a Secure and Resilient Grid," Committee on Science, Space, and Technology, U.S. House of Representatives, March 18, 2021, <https://science.house.gov/hearings/lessons-learned-from-the-texas-blackouts-research-needs-for-a-secure-and-resilient-grid>.

¹⁴ Roger Pielke Jr., Twitter post April 28, 2021, 10:43am, <https://twitter.com/RogerPielkeJr/status/1387417105650249733>.

¹⁵ European Union, "Regulation (EU) 2020/852 of the European Parliament and of the Council," June 18, 2020, <https://eur-lex.europa.eu/eli/reg/2020/852/oj>.

services, and processes. Guessing wrong could be counterproductive to the very climate objectives the administration is trying to achieve.

For example, how would SEC requirements for companies to disclose emissions discern the environmental impacts of a company that sells electric vehicles (which may be powered by coal fired electricity, depending on the state) and a company that sells diesel buses (which, though emitting GHGs, may take more gasoline-fueled cars off the road and consequently net a reduction in GHGs)?¹⁶ In other words, understanding energy use per mile, emissions intensity, and other environmental tradeoffs are not clear cut answers, but depend heavily on how consumers actually use these products. Or again, fossil fuels provide critical backup power to accommodate intermittent renewable electricity technologies, necessary to maintain the physical reliability of the grid.¹⁷

The SEC cannot know how industries and markets will evolve and innovate to meet customer energy and environmental demands. It runs the risk of working against environmental improvement by using what could be a crude, over-simplified tool relative to the diversity and dynamism of markets.

3. Consider rule of law. The mission of the SEC is “to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.”¹⁸ To that end it already requires material climate related information to be disclosed. However, an April 20th letter by twelve Senators of the Committee on Banking, Housing, and Urban Affairs expresses concern that the SEC’s interest in requiring “new disclosure requirement would force companies to disclose non-material climate-related information,” “misuse financial regulators,” and is “abusing government power.”¹⁹ The SEC should not flip its mission on its head in service of climate regulation.

The electricity sector again provides a useful example. The mission of the North American Electric Reliability Corporation is to “to assure the effective and efficient reduction of risks to the reliability and security of the grid.”²⁰ This entails some consideration of weather and climate-

¹⁶ See for example a small study done by researchers at the University of Wisconsin on increased use of self-driving vehicles, including self-driving EV vehicles, and implications for use of public transportation and emissions. Wissam Kontar, Soyoungh Ahn, and Andrea Hicks, “Autonomous vehicle adoption: use phase environmental implications,” *Environmental Research Letters*, Vol. 16, No. 6 (May 18, 2021), <https://iopscience.iop.org/article/10.1088/1748-9326/abf6f4/>. Also see: Elena Verdolini, Francesco Vona, and David Popp, “Bridging the Gap: Do Fast Reacting Fossil Technologies Facilitate Renewable Energy Diffusion?” National Bureau of Economic Research, Working Paper 22454, July 2016, https://www.nber.org/system/files/working_papers/w22454/w22454.pdf.

¹⁷ This was a critical lesson in Texas in February 2021 but is not unique to the US. “For instance, Eon Netz (2004), one of the four grid managers in Germany, indicates that 8 MW of back-up capacity are required for any 10 MW of wind capacity added to the system.” Verdoni et al, “Bridging the Gap.” Robert Walton, “NERC Sees Potential Summer Energy Shortfalls, Says Energy Transition ‘Pace’ May Threaten Reliability,” *Utility Dive*, May 27, 2021, <https://www.utilitydive.com/news/nerc-sees-potential-summer-energy-shortfalls-says-energy-transition-pace/600878/>.

¹⁸ U.S. Securities and Exchange Commission, “What We Do: Introduction,” <http://www.sec.gov/about/whatwedo.shtml#intro>.

¹⁹ Toomey, et al, letter to John F. Kerry, April 20, 2021.

²⁰ North American Energy Reliability Corporation, “About NERC,” <https://www.nerc.com/AboutNERC/Pages/default.aspx>.

related trends. But to make climate an organizing principle of its mission would seriously jeopardize other considerations to maintaining grid reliability such as addressing grid reliability challenges from cybersecurity threats, market distortions, antitrust concerns, and the limitations presented by laws of physics.²¹

So with the SEC and its consideration of climate issues. The SEC is to incorporate climate issues where it is relevant to its mission, not to advance climate policy. The SEC's consideration of redefining materiality (overtly or otherwise) or of using additional disclosure requirements to advance a climate agenda rather than to provide investors with material information will achieve far more economic harm than it will environmental good. Substituting tenuous, subjective, or vaguely defined environmental aims would dilute a critical point of accountability that investors hold over companies through disclosure requirements. It almost invites deception and fraud.

It is important to note that whatever action the SEC takes, it will have no impact on global temperatures by the end of the century. U.S. Special Presidential Envoy for Climate John Kerry has noted several times in the past that "if all the industrial nations went down to zero emissions...it wouldn't be enough."²² Even so, it is likely an emissions disclosure requirement by the SEC could have counterproductive impacts on GHG emissions given consumer decision-making well outside the realm of the Commission's role or knowledge. However, it can exert political pressure on legal, legitimate economic activities, or create such an environment of uncertainty as to thwart investment in those activities²³ – something which should concern all Americans.

I appreciate the opportunity to share my thoughts on the Commission's questions and considered actions.

Sincerely,

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²¹ For example, Walton, "NERC Sees Potential Summer Energy Shortfalls."

²² Nicolas D. Loris, "John Kerry's Surprising Comments on International Regulations and Climate Change," The Daily Signal, December 11, 2015, <https://www.dailysignal.com/2015/12/11/john-kerrys-surprising-comments-on-international-regulations-and-climate-change/>.

²³ "But investors are still casting a wary eye on how LNG plays into the administrations climate finance plans before pouring money into new projects." Zack Colman and Ben Lefebvre, "Biden Sticks to 'Ambiguity' on LNG Amid Climate Push," Politico, June 4, 2021, <https://subscriber.politicopro.com/article/2021/06/biden-sticks-to-ambiguity-on-lng-amid-climate-push-2058535>.