

Endnotes

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Recommended Citation

(2022) "Endnotes," *Sustainable Development Law & Policy*. Vol. 21 : Iss. 1 , Article 7.
Available at: <https://digitalcommons.wcl.american.edu/sdlp/vol21/iss1/7>

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- ³⁴ U.S. GOV'T ACCOUNTABILITY OFF., GAO-18-188, CLIMATE RELATED RISKS: SEC HAS TAKEN STEPS TO CLARIFY DISCLOSURE REQUIREMENTS 9 (2018) (focusing on floods, droughts, hurricanes, tornadoes as most substantial climate risks); see also Abraham Lustgarten, *Climate Change Will Force a New American Migration*, PROPUBLICA (Sept. 15, 2020, 5:00 AM) <https://www.propublica.org/article/climate-change-will-force-a-new-american-migration> (arguing that the worsening of climate change will make certain areas of the country uninhabitable, forcing many to move, which can only exacerbate existing wealth inequalities); Christopher Flavelle, *Climate Change Tied to Pregnancy Risks, Affecting Black Mothers Most*, N.Y. TIMES (June 18, 2020), <https://www.nytimes.com/2020/06/18/climate/climate-change-pregnancy-study.html> (finding that higher exposure to air pollution leads to an increased risk of premature birth and greater likelihood of stillbirths).
- ³⁵ Veena Ramani, Ceres, *Addressing Climate as a Systemic Risk: A Call to Action for Financial Regulators*, HARV. L. SCH. F. CORP. GOVERNANCE (June 28, 2020) (citing disruptions in the labor force, supply chains, and structural shifts in the economy as major "climate risks" that could have significant consequences on asset valuations, global financial markets, and global economic stability).
- ³⁶ *Id.* See also Kevin L. Doran & Elias L. Quinn, *Climate Change Risk Disclosure: A Sector by Sector Analysis of SEC 10-K Filings from 1995-2008*, N.C. J. INT'L L. & COM. REG., Spring 2009, at 123.
- ³⁷ Doran, *supra* note 35, at 102.
- ³⁸ See Press Release, London Sch. Econ., New study estimates global warming of 2.5 centigrade degrees by 2100 would put at risk trillions of dollars of world's financial assets (Apr. 4, 2016), <https://www.lse.ac.uk/GranthamInstitute/news/us2-5-trillion-of-the-worlds-financial-assets-would-be-at-risk-from-the-impacts-of-climate-change-if-global-mean-surface-temperature-rises-by-2-5c/> (explaining the impact climate change could have on the financial sector).
- ³⁹ See Jennifer Hijazi, *Mounting Climate Cases Expand Big Oil's Legal Battlefield*, E&E NEWS (Sept. 16, 2020), <https://www.eenews.net/stories/1063713839> (noting government officials' willingness to file climate misinformation lawsuits under consumer protection and anti-fraud statutes); see, e.g., State v. Chevron Corp., C.A. No. PC-2018-4716 (R.I. Sup. Ct. 2020) (alleging, *inter alia*, that the "production, promotion, and marketing of fossil fuel products" has increased GHGs and is responsible for the climate-related injuries that Rhode Island is experiencing).
- ⁴⁰ See Karen Savage, *Why a Tidal Wave of Climate Lawsuits Looms Over the Fossil Fuel Industry*, CLIMATE DOCKET (Sept. 23, 2020), <https://www.desmogblog.com/2020/09/28/wave-climate-lawsuits-exxon-api-fossil-fuels> 23, 2020) (discussing the litigation that has arisen throughout the fossil fuel industry).
- ⁴¹ See TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 450 (Jun 1976) (defining the omission of information as material if "there is a substantial likelihood that the disclosure . . . would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."); cf. PETER FELTMAN, INTERNATIONAL ACCOUNTING BODY PREPARING CLIMATE CHANGE STANDARDS, CQ ROLL CALL (2020) (advising industries to account for climate change in their companies' financial statements).
- ⁴² See Nina Chestney, *Climate-related financial disclosure becoming more mainstream: G20 task force*, REUTERS (Sep. 26, 2018), <https://www.reuters.com/article/us-climatechange-financial-disclosure/climate-related-financial-disclosure-becoming-more-mainstream-g20-task-force-idUSKCN1M61OM> (reporting that in a survey of 1,700 companies, most were revealing information about the financial impact of climate-related risks).
- ⁴³ See discussion *infra* notes 70–76 and accompanying text (discussing SEC disclosure requirements).
- ⁴⁴ See DELOITTE GLOBAL, *supra* note 13, at 3–5.
- ⁴⁵ See Sara Bernow et al., *More than values: The value-based sustainability reporting that investors want*, MCKINSEY & Co. at 3 (Aug. 7, 2019), <https://www.mckinsey.com/business-functions/sustainability/our-insights/more-than-values-the-value-based-sustainability-reporting-that-investors-want> (explaining how investors are questioning current sustainability reporting practices).
- ⁴⁶ *Id.*
- ⁴⁷ See DELOITTE GLOBAL, *supra* note 13, at 4. (quoting Goldman Sachs leadership, "[I]f you ignore sustainability [as a company], you're going to be worth less.").
- ⁴⁸ *Id.* at 2.
- ⁴⁹ See *People v. Exxon Mobil Corp.*, 65 Misc. 3d 1233(A), 3-4 (N.Y. Sup. Ct. Dec. 10, 2019).
- ⁵⁰ *Id.* at 28 (contemplating whether ExxonMobil's anticipated revenues, which included an estimated price of carbon—proxy costs—misled investors into thinking the corporation was more secure than it actually was).
- ⁵¹ *Id.* at 9–10.
- ⁵² *Id.* at 3–4.
- ⁵³ *Id.* at 6–8.
- ⁵⁴ *Id.* at 82.
- ⁵⁵ *Id.* at 53 ('sufficiently specific' to 'guarantee some fact or outcome') (quoting City of Pontiac Policemen's & Firearm's Ret. Sys v. UBS AG, 752 F.3d 173, 195 (2d Cir. 2014)).
- ⁵⁶ See *c.f.*, Perry Wallace, *Climate Change, Fiduciary Duty, and Corporate Disclosure: Are Things Heating up in the Boardroom*, 26 Va. Env't L. J. 293, 294–296 (2008) (relating climate change developments to discussion of corporate duties to disclose); see generally #ExxonKnew, <https://exxonknew.org/> (last visited Aug. 1, 2020).
- ⁵⁷ Carlson, *supra* note 10.
- ⁵⁸ See Wallace, 57 at 308 (explaining how the period after Enron leading to heightened Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) requirements proves fruitful in applying securities law to climate change litigation); 15 U.S.C. §§ 78b78a78b78a. (2018).
- ⁵⁹ See Wallace, *supra* note 57, at 308–309.
- ⁶⁰ 15 U.S.C. §§ 78m (2018).
- ⁶¹ 17 C.F.R. § 240.10b-5. See *Id.* §§ 77q, 77w.
- ⁶² See 15 U.S.C. § 78j(b); Dura Pharmaceuticals, Inc. v. Broudo, 544 U.S. 336 1627, 1631–32 (2005) (stating that "a person who 'fraudulently' makes a 'misrepresentation' [is liable] 'for. . . loss caused' to one who justifiably relies upon that misrepresentation.").
- ⁶³ 15 U.S.C. § 78u-2(b)(3).
- ⁶⁴ See Savage, *supra* note 30. See generally U.S. DEP'T OF JUST., CRIM. DIV. & U.S. SEC. & EXCH. COMM'N, ENF'T DIV., FCPA: A RESOURCE GUIDE TO THE U.S. FOREIGN CORRUPT PRACTICES ACT 4 (2020) (discussing Department of Justice's (DOJ's) and SEC's shared enforcement authority) [hereinafter FCPA].
- ⁶⁵ Blue Chip Stamps v. Manor Drug Stores, 421 U.S. 723, 728–29 (1975) (describing legislative history of the private cause of action).
- ⁶⁶ The Prospects for Rule X-10B-5: An Emerging Remedy for Defrauded Investors, YALE L. J. 1128, 1130–31 (1950) (noting broadness of the rule as a source of private civil remedies).
- ⁶⁷ FCPA, *supra* note 65 (giving overview of securities laws).
- ⁶⁸ Arnold S. Jacobs, § 8:2. In general, in 5B DISCLOSURE & REMEDIES UNDER THE SEC. LAWS (2020).
- ⁶⁹ See *id.* § 9:6 (rejecting limitations of jurisdictional scope based on whether a security is traded).
- ⁷⁰ 15 U.S.C. § 77g (tasking SEC with promulgating regulations to require each issuer of an asset-backed security to disclose information regarding the assets backing that security); U.S. SEC. & EXCH. COMM'N, *What We Do*, <https://www.sec.gov/Article/whatwedo.html> (Oct. 15, 2020).
- ⁷¹ See Commission Guidance Regarding Disclosure Related to Climate Change, 17 C.F.R. pts. 211, 231, & 241 (2019) (coverage for green buildings, renewable energy, carbon risk management). [hereinafter Commission Guidance].
- ⁷² 15 U.S.C. § 78m.
- ⁷³ *Id.* (providing impetus for SEC's interpretation); see U.S. SEC. & EXCH. COMM'N, *Form 10-K*, <https://www.sec.gov/fast-answers/answers-form10k.htm>.html (last visited July 29, 2020) (discussing disclosure requirement submitted on Form 10-K and given in an annual report providing an overview of a company's financial condition).
- ⁷⁴ Commission Guidance, *supra* note 72, at 21–24 (advising registrants to assess their legal disclosure obligations as climate change regulation evolves); *About Edgar*, U.S. SEC. & EXCH. COMM'N, <https://www.sec.gov/edgar/about> (Aug. 24, 2020).

⁷⁵ *About Edgar*, U.S. SEC. & EXCH. COMM'N [HTTPS://WWW.SEC.GOV/EDGAR/ABOUT](https://www.sec.gov/edgar/about) (Aug. 24, 2020).

⁷⁶ Commission Guidance, *supra* note 72, at 22–24 (considering impact of federal and state legislation with respect to environmental laws; international accords such as the Kyoto Protocol; indirect consequences of regulation or business trends; and the physical impacts of climate change, such as extreme weather, sea levels, arability of farmland, and water availability and quality).

⁷⁷ Comm'r Allison Herren Lee, “Modernizing” Regulation S-K: Ignoring the Elephant in the Room, U.S. SEC. & EXCH. COMM'N (Jan. 30, 2020), https://www.sec.gov/news/public-statement/lee-mds-2020-01-30#_ftn2 (stating, “[I]nvestors are overwhelmingly telling us . . . that they need consistent, reliable, and comparable disclosures of the risks and opportunities related to sustainability measures, particularly climate risk.”).

⁷⁸ Karen Savage, *Learning from NY, Mass. Adjusts Fraud Case Vs. Exxon*, THE CLIMATE DOCKET (June 12, 2020), <https://www.climatedocket.com/2020/06/12/massachusetts-fraud-exxon-new-york/> (stating, “[M]isrepresentations about climate change risks [were] highly misleading.”); *see discussion* notes 88–91 and accompanying text.

⁷⁹ Karen Savage, *DC Files Latest Climate Suit Vs. Big Oil*, THE CLIMATE DOCKET (June 25, 2020), <https://www.climatedocket.com/2020/06/25/washington-dc-climate-lawsuit/>; *see also* Katie Jennings et al., *How Exxon Went from Leader to Skeptic on Climate Change Research*, L.A. TIMES (Oct. 23, 2015), <https://graphics.latimes.com/exxon-research/> (discussing what came to be the smoking gun document in the ExxonMobil litigation—an internal ExxonMobil memo titled the “Exxon Position” that, after noting scientific consensus on the role of fossil fuels in global warming, stated that the company should emphasize uncertainty instead).

⁸⁰ Karen Savage, *Delaware: Latest State to Seek Oil Industry Liability for Climate Damages*, THE CLIMATE DOCKET (Sept. 10, 2020), <https://www.climatedocket.com/2020/09/10/delaware-climate-liability-lawsuit-oil/>; *see also* Karen Savage, *Minnesota Sues Fossil Fuel Industry for Climate Fraud*, THE CLIMATE DOCKET (June 24, 2020), <https://www.climatedocket.com/2020/06/24/minnesota-climate-lawsuit-exxon-koch-api/>.

⁸¹ Compare UNIF. SEC. ACT OF 2002 § 501 (NAT'L CONF. ON COMM'RS ON UNIF. STATE LAWS) (adopted by thirty-nine states), with 18 U.S.C. § 1350 (2002) (requiring that agent know that its certification is fraudulent), and 15 U.S.C. § 77k (1998) (limiting liability to statements within knowledge).

⁸² *See* Anwar v. Fairfield Greenwich Ltd., 728 F. Supp. 2d 354, 369 (S.D.N.Y. 2010) (stating, “While some Martin Act violations do essentially impose strict liability and require no proof of intent, the Martin Act also allows for felony fraud offenses that require proof of ‘fraudulent intent.’”); *see generally* *Blue Sky Laws*, U.S. SEC. & EXCHANGE COMM'N (Oct. 14, 2014), <https://www.sec.gov/fast-answers/answers-blueskyhtm.html> (explaining that every state has its own set of securities laws).

⁸³ Karen Savage, *Learning from NY, Mass. Adjusts Fraud Case Vs. Exxon*, THE CLIMATE DOCKET (June 12, 2020), <https://www.climatedocket.com/2020/06/12/massachusetts-fraud-exxon-new-york/>.

⁸⁴ Am. Compl. at 1, 8–9, *Mass. v. Exxon Mobil Corp.*, No. 1984-CV-02222-BLS1 (Mass. Sup. Ct. June 5, 2020).

⁸⁵ *Supra* notes 57–60 (summarizing case).

⁸⁶ *See* Erik Larson, *Exxon's Climate Trial Is Over in New York. But the Legal War Is Just Beginning*, L.A. TIMES (Nov. 15, 2019), <https://www.latimes.com/business/story/2019-11-15/exxons-climate-change-trial> (noting diversity of lawsuits arising under other state laws).

⁸⁷ *See* Tim McDonnell, *In New Lawsuits Against Big Oil, Prosecutors Borrow from the Fight Against Big Tobacco*, Quartz (June 25, 2020), <https://www.yahoo.com/news/lawsuits-against-big-oil-prosecutors-220147113.html> (“Just as cigarette manufacturers waged a disinformation campaign about the risks of smoking . . . fossil fuel companies have knowingly misled the public about the harms of greenhouse gases.”); *see also* NAOMI ORESKES & ERIK M. CONWAY, *MERCHANTS OF DOUBT: HOW A HANDFUL OF SCIENTISTS OBSCURED THE TRUTH ON ISSUES FROM TOBACCO SMOKE TO CLIMATE CHANGE* 6–7 (2011) (discussing plans to undermine scientific evidence, originating in the tobacco industry, and arising later among the fossil fuel industry).

⁸⁸ *See United States v. Philip Morris (D.O.J. Lawsuit) Overview*, PUB. HEALTH L. CTR., <https://publichealthlawcenter.org/topics/commercial-tobacco-control/commercial-tobacco-control-litigation/united-states-v-philip-morris/> (discussing court's initial rejection of remedies concerning reimbursement of tobacco-related medical expenses) (last visited Oct. 1, 2020).

⁸⁹ Securities Litigation Uniform Standards Act of 1998, Pub. L. No. 105–353, § 2, 112 Stat. 3227 (1998) (finding that state securities enforcement

is concurrent to federal regulation of securities “to protect investors and promote strong financial markets”); *supra* Part II: Disclosing What They Know (providing an overview of options for securities enforcement).

⁹⁰ #ExxonKnew, <https://exxonknew.org/> (last visited Aug. 1, 2020) (petitioning DOJ and State Attorney Generals to investigate ExxonMobil). *But see* Public Statement, Chairman Jay Clayton, *Environmental and Climate-Related Disclosure* (Jan. 30, 2020), <https://www.sec.gov/news/public-statement/clayton-mds-2020-01-30> (noting that the nature of climate-related matters renders forward-looking disclosure requirements challenging due to the complexity, jurisdiction, and uncertainty of the information required to make accurate estimates).

⁹¹ Compl. for Declaratory and Injunctive Relief, at ¶¶ 2, 6–9, *Sierra Club v. SEC*, No. 4:19-cv-6971 (N.D. Cal. Oct. 24, 2019) (noting the importance of SEC oversight to the shareholder proposal process); *see also* Jill E. Fisch, *Making Sustainability Disclosure Sustainable*, 107 GEO. L. J. 923, 933–34 (2019) (explaining the SEC's position that sustainability disclosures are not material, and thus are not a part of financial reporting).

⁹² Compl. for Declaratory and Injunctive Relief, at ¶¶ 6–9, *Sierra Club v. SEC*, No. 4:19-cv-6971 (N.D. Cal. Oct. 24, 2019).

⁹³ *Id.* at ¶¶ 1–2.

⁹⁴ *See* Elizabeth Daigneau, *Hoping for the Success They Had Against Tobacco, State AGs Unite to Fight Climate Change*, GOVERNING (Oct. 2016), <https://www.governing.com/topics/transportation-infrastructure/gov-tobacco-climate-lawsuits.html> (discussing AGs United for Clean Power initiative).

⁹⁵ 17 C.F.R. § 240.14a-8 (2018).

⁹⁶ *Id.* § 240.14a-8(b).

⁹⁷ SULLIVAN & CROMWELL LLP, 2020 PROXY SEASON REVIEW: PART I RULE 14A-8 SHAREHOLDER PROPOSALS 2 (2020); Eric Rosenbaum, *Activists Thought BlackRock, Vanguard Found Religion on Climate Change – Not Anymore*, CNBC (Oct. 13, 2019, 10:00 AM), <https://www.cnbc.com/2019/10/13/blackrock-vanguard-found-religion-on-climate-doubts-are-growing.html>.

⁹⁸ Jill E. Fisch, *Making Sustainability Disclosure Sustainable*, 107 GEO. L. J. 932, 941 (2018).

⁹⁹ *See* David J. Frame et al., *The Economic Costs of Hurricane Harvey Attributable to Climate Change*, 160 CLIMATE CHANGE RSCH. INST. 272, 272 (stating that the average estimate of damages attributable to anthropogenic causes of climate change at \$67 billion) (2020).

¹⁰⁰ *See supra* note 52 and accompanying text (taking survey of investors); Hana V. Vizcarra, *Climate-Related Disclosure & Litigation Risk in the Oil & Gas Industry: Will State Attorneys General Investigations Impede the Drive for More Expansive Disclosures?*, 43 VT. L. REV. 733, 740 (noting challenges of inconsistent reporting requirements and standards).

¹⁰¹ 15 U.S.C. § 78u-2(b)–3 (2010).

¹⁰² SEC Charges Volkswagen, Former CEO with Defrauding Bond Investors During ‘Clean Diesel’ Emissions Fraud, U.S. SEC. & EXCHANGE COMM'N, SEC Charges Volkswagen (Mar. 14, 2019), <https://www.sec.gov/news/press-release/2019-34> (alleging that Volkswagen made misrepresentations concerning its vehicle quality, environmental compliance, and financial standing).

¹⁰³ Press Release, U.S. Dep't Justice, Volkswagen AG Agrees to Plead Guilty and Pay \$4.3 Billion in Criminal and Civil Penalties (Jan. 11, 2017), <https://www.justice.gov/opa/pr/volkswagen-ag-agrees-plead-guilty-and-pay-43-billion-criminal-and-civil-penalties-six>.

¹⁰⁴ *Volkswagen Clean Air Act Civil Settlement* ENV'T. PROT. AGENCY, <https://www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement#mitigation> (last visited Aug. 1, 2020).

¹⁰⁵ In re Volkswagen “Clean Diesel” Mktg., Sales Practices, & Prod. Liab. Litig., No. 7347, 2020 WL 4905093, at *7 (N.D. Cal. Aug. 2020) (denying motion to dismiss SEC's request for injunctive relief).

¹⁰⁶ Sarbanes-Oxley Act of 2002, § 404 (codified in 15 U.S.C.A. § 7272 and requiring internal controls for financial reporting).

¹⁰⁷ U.S. COMMODITY FUTURES TRADING COMM'N, *supra* note 17, at 32; *see also* Fact Sheet, The Climate Risk Disclosure Act of 2019, Sen. Elizabeth Warren, <https://www.warren.senate.gov/imo/media/doc/The%20Climate%20Risk%20Disclosure%20Act%20of%202019%20-%20One%20Page.pdf> (last visited Oct. 2, 2020) (arguing that the market undervalues climate risks).

¹⁰⁸ U.S. COMMODITY FUTURES TRADING COMM'N, *supra* note 17, at 52.

¹⁰⁹ *Id.* at 61.

¹¹⁰ *Id.* at 60.

¹¹¹ Alison Benjamin, *Stern: Climate Change a ‘Market Failure,’* THE GUARDIAN (Nov. 29, 2007, 04:52 EST), <https://www.theguardian.com/environment/2007/nov/29/climatechange.carbonemissions#:~:text=%22The%20problem%20of%20climate%20change,failure%20the%20world%20has%20seen.>

ENDNOTES: SWALLOWING THE RULE: WHY FERC'S "IMMEDIATE NEED EXEMPTION" FRUSTRATES COMPETITIVE AND CLIMATE-SMART ELECTRICITY SECTOR TRANSMISSION PLANNING UNDER ORDER NO. 1000 *continued from page 10*

- ¹ Order Instituting Section 206 Proceedings, 169 FERC ¶ 61,054 (2019).
- ² See 16 U.S.C. § 824d(a) (2012).
- ³ *Id.* § 824(b)(1).
- ⁴ *Id.* § 824(d)(a)-(b).
- ⁵ See Devin Hartman, *Federal Power Act and Organized Electricity Markets*, R. ST. ELEC. 101 Series No.1 (2016), <https://www.rstreet.org/wp-content/uploads/2018/04/electricity1-1.pdf>.
- ⁶ See David B. Spence, *Can Law Manage Competitive Energy Markets*, 93 CORNELL L. REV. 756, 770–71 (2008).
- ⁷ See, e.g., *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 841, 162 FERC ¶ 61,127 (2018); *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, 134 FERC ¶ 61,187 (2011); *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services By Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, 75 FERC ¶ 61,080 (1996).
- ⁸ See *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 136 FERC ¶ 61,051 (2011).
- ⁹ See *id.* at 70–71, 78–84.
- ¹⁰ See *id.*
- ¹¹ See *id.*
- ¹² See *id.*
- ¹³ *Id.* at 225–26.
- ¹⁴ See Order Instituting Section 206 Proceedings, 169 FERC ¶ 61,054, at PP 3, 5 (2019).
- ¹⁵ *Id.*
- ¹⁶ See *ISO New England*, 143 FERC ¶ 61,150 at 238 (2013); see also *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 at 249 (2013); *Sw. Power Pool, Inc.*, 144 FERC ¶ 61,059 at 197 (2013).
- ¹⁷ *ISO New England*, 143 FERC ¶ 61,150 at P 238.
- ¹⁸ See Johannes Pfeifenberger et al., *Cost Savings Offered by Competition in Electric Transmission: Experience to Date and the Potential for Additional Customer Value*, 3–4 BRATTLE GRP. (Apr. 2019).
- ¹⁹ *Id.* at 26, 28.
- ²⁰ See *id.* at 5.
- ²¹ See *id.* at 12–13.
- ²² See *id.* at 39–40.
- ²³ See *id.*
- ²⁴ *ISO New England*, 143 FERC ¶ 61,150 at 236; *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 at 248; *Sw. Power Pool, Inc.*, 144 FERC ¶ 61,059 at 195–196.
- ²⁵ See *PJM Interconnection, L.L.C.*, 156 FERC ¶ 61,030 at 22–24 (2016).
- ²⁶ Comments of the New England State Agencies, Docket No. EL 19-90-000 at 7 (Dec. 27, 2019) (No. EL19-90-000).
- ²⁷ See *id.*
- ²⁸ See *id.*
- ²⁹ Submission of Short-Term Reliability Projects Informational Filing, No. ER13-366-000 at 3 (Jan. 24, 2019).
- ³⁰ Order Instituting Section 206 Proceedings, 169 FERC ¶ 61,054 at 10 (2019).
- ³¹ *Id.* at 9.
- ³² See ISO NEW ENG., INC., 2019 REGIONAL SYSTEM PLAN 100 (2019), (characterizing transmission projects in-service in ISO-NE as helping “maintain system reliability” and supporting a “robust, competitive wholesale power market by reliably moving power”); SW. POWER POOL, INC., BALANCE: 2018 ANNUAL REPORT 14 (2018). <https://www.spp.org/documents/59858/2018%20annual%20report%2020190416%20spp-org.pdf> (noting SPP’s “robust and reliable processes and decade-long investment in grid modernization”); PJM INTERCONNECTION, L.L.C., LEADING THROUGH THE TRANSITION: 2018 PJM ANNUAL REPORT 4 (2018) (“Overall, markets continue to work well to deliver reliability at the least cost.”).
- ³³ Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 76 Fed. Reg. 49,842, 49,876–77 (Aug. 11, 2011) (to be codified at 18 C.F.R. pt. 35).
- ³⁴ *Id.* at 49,876.
- ³⁵ See generally *State Renewable Portfolio Standards and Goals*, NAT’L CONF. STATE LEGISLATURES (Apr. 17, 2020), <https://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx>.
- ³⁶ See 2019 REGIONAL SYSTEM PLAN, *supra* note 32, at 145–46.
- ³⁷ *Comparison of Renewable Portfolio Standards (RPS) Programs in PJM States*, PJM INTERCONNECTION L.L.C., <https://www.pjm-eis.com/~media/pjm-eis/documents/rps-comparison.ashx>.
- ³⁸ See *State Renewable Portfolio Standards and Goals*, *supra* note 35.
- ³⁹ Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 76 Fed. Reg. at 49,880.
- ⁴⁰ See generally Garrett Fitzgerald et al., ROCKY MOUNTAIN INST., *THE ECONOMICS OF BATTERY ENERGY STORAGE* 5 (2015).
- ⁴¹ See Rich Glick & Matthew Christiansen, *FERC and Climate Change*, 40 ENERGY L.J. 1, 37 (2019).
- ⁴² Alexander E. MacDonald et al., *Future Cost-competitive Electricity Systems and Their Impact on US CO₂ Emissions*, 6 NATURE CLIMATE CHANGE 526, 526 (2016).
- ⁴³ Glick & Christiansen, *supra* note 41 at 35.

ENDNOTES: ACCOUNTING FOR CLIMATE CHANGE IN UNITED STATES’ REGIONAL OCEAN PLANNING: COMPARING THE OBAMA AND TRUMP NATIONAL OCEAN POLICIES TO A CLIMATE-FORWARD APPROACH *continued from page 17*

- ⁹ *Id.*
- ¹⁰ *Id.*; Hana V. Vizcarra & Laura Bloomer, *Analysis of the Regulation and Deregulation of U.S. Ocean and Fisheries Policies*, HARVARD LAW SCHOOL ENVIRONMENTAL & ENERGY LAW PROGRAM 1, 11 (2019), <http://eelp.law.harvard.edu/wp-content/uploads/Oceans-paper-COMPLETE-WEB-VERSION.pdf>.
- ¹¹ See Vizcarra & Bloomer, *supra* note 10, at 11.
- ¹² U.N. Env’t Programme and World Meteorological Org., Intergovernmental Panel on Climate Change (IPCC), *Climate Change - The IPCC Scientific Assessment*, (1990), https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_I_full_report.pdf.
- ¹³ U.N. Env’t Programme and World Meteorological Org., Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate: Summary for Policymakers*, (2019), <https://www.ipcc.ch/srocc/chapter/summary-for-policymakers/>.
- ¹⁴ *Id.* at 5, 9, 13, 16, 20, 22, 27.
- ¹⁵ Robin Kundis Craig, *Ocean Governance for the 21st Century: Making Marine Zoning Climate Change Adaptable*, 36 HARV. ENV’T. L. REV. 305, 318–19 (2012).
- ¹⁶ IPCC Special Report (2019) at 16.
- ¹⁷ *Id.* IPCC Special Report at 15.
- ¹⁸ Craig, *supra* note 15, at 310.
- ¹⁹ IPCC Special Report (2019) at 27.
- ²⁰ Craig, *supra* note 15, at 307.
- ²¹ *Id.* at 310–11.
- ²² *Id.* at 310.
- ²³ *Id.*
- ²⁴ *Id.* at 307.
- ²⁵ Robin Kundis Craig, *Ocean Governance for the 21st Century: Making Marine Zoning Climate Change Adaptable*, 36 HARV. ENV’T. L. REV. 305, 310 (2012).
- ²⁶ See Elena Gissi, Simonetta Frascchetti, and Fiorenza Micheli, *Incorporating Change in Marine Spatial Planning: A Review*, 92 ENV’T SCI. POL’Y 191, 192 (2019) (giving examples of MSP initiatives).
- ²⁷ Craig, *supra* note 15, at 333; U.S. COMM’N ON OCEAN POLICY, REVIEW OF THE U.S. OCEAN AND COASTAL LAW: THE EVOLUTION OF OCEAN GOVERNANCE OVER THREE DECADES APP. 6 TO AN OCEAN BLUEPRINT FOR THE 21ST CENTURY at 6 (2004); See John Duff, *The Voice of Local Authorities in Coastal and Marine Spatial Planning in the Northeast: Insights From the Regional Ocean Planning Process*, 8 SEA GRANT L. & POL’Y J. 6, 6 (2017) (describing the

relationship between varying levels of government jurisdiction in the MSP of U.S. coastal waters).

²⁸ Duff, *supra* note 27, at 8.

²⁹ U.S. COMM'N ON OCEAN POL'Y, AN OCEAN BLUEPRINT FOR THE 21ST CENTURY (2004) at 70.

³⁰ *Id.* at 71.

³¹ *Id.* at 72.

³² See, e.g., Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1801 (2007) (exemplifying a law that governs marine fisheries management in U.S. federal waters).

³³ U.S. COMM'N ON OCEAN POL'Y, *supra* note 29, at 76, 80.

³⁴ See *id.* at 67–68.

³⁵ See *id.*

³⁶ Oceans Act of 2000 § 3(a), (f)(1) Pub. L. No. 106-256 (establishing the Commission on Ocean Policy and ordering the Commission to report its U.S. ocean policy findings and recommendations).

³⁷ U.S. COMM'N ON OCEAN POL'Y, *supra* note 29 at 55.26.

³⁸ *Id.* at 378.

³⁹ *Id.* at 87, 90.

⁴⁰ *Id.* at 90.

⁴¹ *Id.* at 98.

⁴² HARVARD ENVIRONMENTAL & ENERGY LAW PROGRAM STAFF, NAT'L OCEAN POL'Y EXEC. ORDER (Sep. 20, 2018), <https://eelp.law.harvard.edu/2018/09/national-ocean-policy-executive-order/> (describing the creation and subsequent revocation of the National Ocean Council, National Ocean Policy); See NAT'L OCEAN COUNCIL, NAT'L OCEAN POLICY IMPLEMENTATION PLAN (2013) at ii, https://obamawhitehouse.archives.gov/sites/default/files/national_ocean_policy_implementation_plan.pdf.

⁴³ *What is an Executive Order?*, A.B.A., (Oct. 9, 2020) (2018), [https://www.americanbar.org/groups/public_education/publications/teaching-legal-docs/what-is-an-executive-order-/\(describing executive orders and how they are used in the U.S.\)](https://www.americanbar.org/groups/public_education/publications/teaching-legal-docs/what-is-an-executive-order-/)https://www.americanbar.org/groups/public_education/publications/teaching-legal-docs/what-is-an-executive-order-/.

⁴⁴ Robert B. Cash, Note, *Presidential Power: Use and Enforcement of Executive Orders*, 39 NOTRE DAME L. REV. 44, 44 (1963).

⁴⁵ NAT'L OCEAN COUNCIL, *supra* note 42, at 2 (explaining the function of the National Ocean Policy).

⁴⁶ *What is an Executive Order?*, *supra* note 43.

⁴⁷ Exec. Order No. 13547, 3 C.F.R. 13547 (2010).

⁴⁸ *Id.*

⁴⁹ Christy Goldfuss & John P. Holdren, *The Nation's First Ocean Plans*, THE WHITE HOUSE BLOG (Dec. 7, 2016, 9:02 AM), <https://obamawhitehouse.archives.gov/blog/2016/12/07/nations-first-ocean-plans>.

⁵⁰ Healthy Oceans Coalition, *Support Ocean Planning*, <https://healthyoceanscoalition.org/our-work/coalition-priorities/marine-life>.

⁵¹ Exec. Order No. 13547, 3 C.F.R. 13547 (2010).

⁵² National Ocean Council, *supra* note 4, at 22; The White House Council on Environmental Quality, *Final Recommendations Of The Interagency Ocean Policy Task Force* (2010) at 58, https://obamawhitehouse.archives.gov/files/documents/OPTF_FinalRecs.pdf.

⁵³ White House Council on Environmental Quality, *supra* note 54, at 57-58, 63.

⁵⁴ *Id.* at 47.

⁵⁵ See generally Northeast Regional Planning Body, *supra* note 6; Mid-Atlantic Regional Planning Body, *supra* note 6.

⁵⁶ See generally Mid-Atlantic Regional Council on the Ocean, *Mid-Atlantic Ocean Data Portal*, <http://portal.midatlanticocean.org/ocean-stories/every-map-tells-a-story/>; Northeast Regional Ocean Council, *Northeast Ocean Data*, <https://www.northeastoceandata.org/about/>.

⁵⁷ Craig, *supra* note 14, at 312-313.

⁵⁸ Northeast Regional Planning Body, *supra* note 6, at 5; Mid-Atlantic Regional Planning Body, *supra* note 6, at 39.

⁵⁹ Mid-Atlantic Regional Planning Body, *supra* note 6, at 41.

⁶⁰ *Id.* at 41-42.

⁶¹ Northeast Regional Planning Body, *supra* note 6, at 5.

⁶² *Id.* at 167.

⁶³ Duff, *supra* note 27, at 10-11.

⁶⁴ Exec. Order No. 13840, at 29432 (June 19, 2018); Fact Sheet, *President Donald J. Trump is Promoting America's Ocean Economy*, The White House (June 19, 2018) ("President Trump's Executive Order also eliminates the

duplicative, Federally driven Regional Planning Bodies established by the previous Administration"), <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-promoting-americas-ocean-economy/>.

⁶⁵ Exec. Order No. 13840, 29431-34 (June 19, 2018).

⁶⁶ Ocean Policy Committee, *Summary of the 2019 White House Summit on Partnerships in Ocean Science & Technology* (2019), <https://www.whitehouse.gov/wp-content/uploads/2019/11/Ocean-ST-Summit-Readout-Final.pdf>; Memorandum on Ocean Mapping of the United States Exclusive Economic Zone and the Shoreline and Nearshore of Alaska, 84 Fed. Reg. 64699, 64699-647701 (Nov. 19, 2019).

⁶⁷ David Malakoff, *Trump's New Oceans Policy Washes Away Obama's Emphasis on Conservation and Climate*, Science Magazine (June 19, 2018), <https://www.sciencemag.org/news/2018/06/trump-s-new-oceans-policy-washes-away-obama-s-emphasis-conservation-and-climate>.

⁶⁸ Hana V. Vizcarra & Laura Bloomer, *Analysis of the Regulation and Deregulation of U.S. Ocean and Fisheries Policies*, HARVARD LAW SCHOOL ENVIRONMENTAL & ENERGY LAW PROGRAM (2019) at 11, <http://eelp.law.harvard.edu/wp-content/uploads/Oceans-paper-COMPLETE-WEB-VERSION.pdf>.

⁶⁹ *Id.*

⁷⁰ *Id.*; Fact Sheet, The White House (June 19, 2018).

⁷¹ Northeast Ocean Planning, <https://neooceanplanning.org/about/> (last visited Jul. 13, 2020)

(The Ocean Planning Committee (OPC) had first been constituted in 2005 when the Governors of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut joined to form the Northeast Regional Ocean Council. After the issuance of the Obama Administration's E.O. creating the Regional Planning Bodies, the members of the OPC shifted to this new body in support of the administrations' ocean priorities. When Trump's E.O. rescinded the Obama era policy, the OPC was simply reconstituted with the same membership as existed in the RPB).

⁷² Northeast Regional Ocean Council - Ocean Planning Committee, *2019-2020 Work Plan*, 1, 1-6 (2019), https://www.northeastoceancouncil.org/wp-content/uploads/2019/06/NROC_OceanPlanningCommittee_WorkPlan_2019-2020.pdf.

⁷³ Vizcarra & Bloomer, *supra* note 68, at 11.

⁷⁴ Hana V. Vizcarra & Laura Bloomer, *Analysis of the Regulation and Deregulation of U.S. Ocean and Fisheries Policies*, HARVARD LAW SCHOOL ENVIRONMENTAL & ENERGY LAW PROGRAM (2019) at 11, <http://eelp.law.harvard.edu/wp-content/uploads/Oceans-paper-COMPLETE-WEB-VERSION.pdf>; Harvard University Environmental & Energy Law Program Staff, *National Ocean Policy Executive Order* (Sept. 20, 2018), <https://eelp.law.harvard.edu/2018/09/national-ocean-policy-executive-order/>.

⁷⁵ Ocean Policy Committee: Ocean Science and Technology Subcommittee, *Workplan to Identify Priority Research and Technology Needs*, (Feb. 2019), <https://www.whitehouse.gov/wp-content/uploads/2017/11/20190211-OST-workplan-FINAL.pdf>.

⁷⁶ *Id.*; Vizcarra & Bloomer, *supra* note 74, at 11.

⁷⁷ U.N. Env't Programme and World Meteorological Org., Intergovernmental Panel on Climate Change [IPCC], *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*, 2019: (Summary for Policymakers) 5 (Nerilie Abram et al. eds., 2019), available at: <https://www.ipcc.ch/srocc/chapter/summary-for-policymakers/>.

⁷⁸ U.S. Commission on Ocean Policy, Appendix 6: The Evolution of Ocean Governance Over Three Decades, *An Ocean Blueprint for the 21st Century*, Washington, D.C., (2004) at 90; Pew Oceans Comm'n, *America's Living Oceans: Charting a Course for Sea Change* (2003), http://www.pewtrusts.org/pdf/env_pew_oceans_final_report.pdf.

⁷⁹ See J.R. King, & G.A. McFarlan, *A framework for incorporating climate regime shifts into the management of marine resources*, 13 FISHERIES MGMT. & ECOLOGY 93, 95 (2006) (stressing the need for a regional perspective on climate change); Josh Eagle, *Regional Ocean Governance: The Perils of Multiple-Use Management and the Promise of Agency Diversity*, 16 DUKE ENV'L LAW & POLICY F. 143, 156-58 (2006) (discussing the relevant benefits of the Pew Commission's proposal to shift to regional ocean governance).

⁸⁰ See Northeast Ocean Planning, *Northeast Ocean Plan*, at 69 (2016), available at https://neooceanplanning.org/wp-content/uploads/2018/01/Northeast-Ocean-Plan_Full.pdf (describing the various ways in which the Portal will benefit the tribes).

⁸¹ See John Duff, *The Voice of Local Authorities in Coastal and Marine Spatial Planning in the Northeast: Insights From the Regional Ocean*

Planning Process, 8 SEA GRANT LAW AND POLICY JOURNAL, 2017, at 16 (explaining how regional ocean planning processes are much more responsive by structurally including state and local feedback in developing and revising environmental management plans).

⁸² See generally National Ocean Council, National Ocean Policy Implementation Plan, at 21-23 (2013), available at https://obamawhitehouse.archives.gov/sites/default/files/national_ocean_policy_implementation_plan.pdf (laying out how federal, state, tribal, and local authorities will have their interests and data evaluated together in a streamlined process via RPBs without infringing on their discrete regulatory authority).

⁸³ See Robin Kundis Craig, *Ocean Governance for the 21st Century: Making Marine Zoning Climate Change Adaptable*, 36 HARV. ENVTL. L. REV. 313 (2012) (noting that, “by its very nature, marine spatial planning imports a static quality into marine management[.]” which it further explains is intentional and beneficial).

⁸⁴ See *id.* at 344 (observing that, despite the otherwise static nature of marine spatial planning, dynamic zoning is possible and can be useful).

⁸⁵ See *id.* at 344-45 (detailing how TurtleWatch, a dynamic fisheries management tool, allows for a “moving recommended fishing zone, which appears effective in reducing loggerhead sea turtle bycatch”); see generally Sara M. Maxwell et al., *Dynamic ocean management: Defining and conceptualizing real-time management of the ocean*, 58 MARINE POLICY 434243 (2015) (giving an in-depth overview of the possible benefits of utilizing dynamic marine spatial planning).

⁸⁶ See Craig, *supra* note 83, at 345 (providing an overview of how far turtles migrate across the ocean over the course of a year).

⁸⁷ See *id.* (explaining how TurtleWatch uses precisely that data to protect turtles in that manner).

⁸⁸ See National Ocean Council, National Ocean Policy Implementation Plan, at 2 (2013), available at https://obamawhitehouse.archives.gov/sites/default/files/national_ocean_policy_implementation_plan.pdf. (defining the legal limits of the NOP and how it works within those limits).

⁸⁹ See Jennifer McCann, Sarah Schumann, Grover Fugate, Sue Kennedy, and Chip Young, The Rhode Island Ocean Special Area Management Plan: Managing Ocean Resources Through Coastal and Marine Spatial Planning. University of Rhode Island Coastal Resources Center/Rhode Island Sea Grant College Program, at 4 (2013), available at https://seagrant.gso.uri.edu/oceansamp/pdf/Practitioner_Guide.pdf. (acknowledging that, although the SAMP serves many purposes, the primary impetus for its creation was “determin[ing] where offshore renewable energy should be sited”).

⁹⁰ See *id.* at 28 (observing that enforcement of the SAMP beyond Rhode Island’s EEZ requires coordination with the federal government).

⁹¹ See *id.* at 4, 13 (noting that the SAMP took two years to draft and receive state approval prior to its submission to the process of federal review).

⁹² See *id.* at 28-29 (explaining how these laws allow Rhode Island to try to apply the SAMP outside of its boundaries through the federal government).

⁹³ See U.S. Department of the Interior, Bureau of Ocean Energy Management, Coastal Zone Management Act, available at <https://www.boem.gov/environment/environmental-assessment/coastal-zone-management-act> (last visited on Nov. 15, 2020) (explaining how the federal consistency requirement of the CZMA works).

⁹⁴ See National Oceanic and Atmospheric Administration, Office for Coastal Management, Federal Consistency (last visited Nov. 12, 2020), <https://coast.noaa.gov/czm/consistency/> (noting that, as a result, the federal consistency provision is “a major incentive for states to join the National Coastal Zone Management Program”).

⁹⁵ See Braxton Davis, *Judicial Interpretations of Federal Consistency under the Coastal Zone Management Act*, 29 Coastal Mgmt. 341, 347-48 4 (2001) (observing that the states are often required to exhaust administrative remedies before seeking judicial review, and that the federal government has challenged state authority in a number of such instances).

⁹⁶ See National Oceanic and Atmospheric Administration, Listed federal license or permit activities, 15 C.F.R. § 930.53 (2020) (establishing the technical requirements for drafting, and the administrative results of providing, such lists and GLDs).

⁹⁷ See National Oceanic and Atmospheric Administration, Program change decision criteria, 15 C.F.R. § 923.84(d) (detailing what sort of information a state coastal analysis must provide).

⁹⁸ See Chad J. McGuire, *Coastal Planning, Federal Consistency, and Climate Change: A Recent Divergence of Federal and State Interests*, 27

Nat. Res. & Env’t 41, 46 (2012) (discussing the general utility of the state’s argument advanced in the referenced case).

⁹⁹ See *id.* at 46 (laying out the particulars, and the strengths and weaknesses, of such an argument).

¹⁰⁰ See, e.g., Mid-Atlantic Ocean Data Portal, About the Portal (2020), <https://portal.midatlanticocean.org/about-us/> (explaining that the portal “consolidates available data and enables state, federal and local users to visualize and analyze ocean resources and human use information”) at 2; Northeast Ocean Data Portal, About the Northeast Ocean Data Portal (2020), <https://www.northeastoceandata.org/about/> (describing how its data “facilitates decision making by government agencies, businesses, non-government organizations (NGOs), academic entities, and individuals”).

¹⁰¹ See, e.g., Northeast Ocean Planning, Northeast Ocean Plan, at 168-69 (2016), https://neoceanplanning.org/wp-content/uploads/2018/01/Northeast-Ocean-Plan_Full.pdf (noting that there are many gaps in the relevant bodies of knowledge which should or even must be filled).

¹⁰² See Robin Kundis Craig, *Ocean Governance for the 21st Century: Making Marine Zoning Climate Change Adaptable*, 36 HARV. ENVTL. L. REV. 342 (2012) (describing how anticipatory zoning works as an approach).

¹⁰³ See *id.* at 343-44 (providing an overview of the implementation of the FMP); NOAA Fisheries, Fishery Management Plan for Fish Resources of the Arctic Management Area, at 4, 9 (2009) [hereinafter “2009 Arctic FMP”], available at <https://www.fisheries.noaa.gov/management-plan/fish-resources-arctic-management-plan> (explaining that the Council developed and implemented the FMP based on the best available information while keeping the effects of climate change in mind).

¹⁰⁴ *Id.*, 2009 Arctic FMP, at 2.

¹⁰⁵ See *id.* at 61 (noting that commercial fishing and climate change will “interact in complex ways to affect the marine ecosystem[.]” which require further study).

¹⁰⁶ See Kim S. Alexander, Anthony Ryan, & Thomas G. Measham, *Managed retreat of coastal communities: understanding responses to projected sea level rise*, 55 J. Env’t Plan. & Mgmt. 409, 410-12 (discussing the need for coastal communities to take climate change into account in their long-term planning, the ways some of them are doing so, and the costs and benefits of such planning).

¹⁰⁷ See Craig, *supra* note 102, at 344 (explaining how anticipatory zoning in regard to climate change would benefit wind farms).

¹⁰⁸ See Robin Kundis Craig, *Ocean Governance for the 21st Century: Making Marine Zoning Climate Change Adaptable*, 36 HARV. ENVTL. L. REV. 328-29 (2012) (discussing the importance of “place-based approaches” to marine ecosystem management).

¹⁰⁹ See Jean-Pierre Gattuso et al., *Ocean Solutions to Address Climate Change and Its Effects on Marine Ecosystems*, 5 Frontiers in Marine Sci., 1, 2 (2018).

¹¹⁰ Craig, *supra* note 108, at 310, 324, 329.

¹¹¹ Herman S. J. Cesar and Pieter J. H. van Beukering, *Economic Valuation of the Coral Reefs of Hawai’i*, 58 PAC. SCI. 2:231, 235; Craig, *supra* note 108, at 328. (See Robert W. Buddemeier et al., *Pew Ctr. On Glob. Climate Change to Stresses on Coral Reef Ecosystems iii* (2004).

¹¹² Exec. Order No. 13158, 65 C.F.R. 34909 (May 26, 2000) (calling for a national system of MPAs); See World Wildlife Fund, *Coral Triangle: What WWF is Doing*, <https://www.worldwildlife.org/places/coral-triangle> (last visited July 26, 2020); Craig, *supra* note 108, at 329.

¹¹³ Nat’l Marine Protected Areas, Ctr., *Framework for the Nat’l of Sys. Marine Protected Areas Of the United States of America* (Mar. 2015) <https://nmsmarineprotectedareas.blob.core.windows.net/marineprotectedareas-prod/media/archive/nationalsystem/framework/final-mpa-framework-0315.pdf>.

¹¹⁴ *Id.* at 12.

¹¹⁵ *Id.* at 7, 22-23, 28.

¹¹⁶ Robin Kundis Craig, *Ocean Governance for the 21st Century: Making Marine Zoning Climate Change Adaptable*, 36 HARV. ENVTL. L. REV. 329, 339-40 (2012).

¹¹⁷ John Duff, *The Voice of Local Authorities in Coastal and Marine Spatial Planning in the Northeast: Insights From the Regional Ocean Planning Process*, 8 SEA GRANT LAW AND POLICY JOURNAL, 2017, at 17.

¹¹⁸ Emily A. Smith et al., *Treading Water: Tools to Help US Coastal Communities Plan for Sea Level Rise Implications*, 6 Frontiers in Marine Sci. 1, 2 (2019) (see discussion of direct impacts of climate change on local coastal communities and the need for solutions to be responsive to unique coastal communities’ needs).

¹¹⁹ Nat'l Ocean Council, *Ne. Ocean Plan* (2016) at 99; *Mid-Atl. Reg'l Plan. Body, Mid-Atl. Reg'l Ocean Action Plan* (2016) at 70.

¹²⁰ Nat'l Ocean Council, *Ne. Ocean Plan* (2016) at 11, 25, 90, 99; *Mid-Atl. Reg'l Plan. Body, Mid-Atl. Reg'l Ocean Action Plan* (2016) at 12, 60.

¹²¹ Smith, *supra* note 118, at 2, Duff, *supra* note 117, at 16-17.

¹²² Smith, *supra* note 118, at 2.

¹²³ John Duff, *The Voice of Local Authorities in Coastal and Marine Spatial Planning in the Northeast: Insights From the Regional Ocean Planning Process*, 8 SEA GRANT LAW AND POLICY JOURNAL, 2017, at 16-17.

ENDNOTES: CLIMATE MIGRATION BEYOND THE REFUGEE FRAMEWORK: CREATING BRIDGES BETWEEN HUMAN RIGHTS AND INTERNATIONAL CLIMATE LAW *continued from page 19*

⁷ Protocol Relating to the Status of Refugees, art. 1(2), Jan. 31, 1967, 606 U.N.T.S. 267.

⁸ See Convention on Refugees, *supra* note 4, art. 1(A)(2).

⁹ DANIEL BODANSKY ET AL., INTERNATIONAL CLIMATE CHANGE LAW 314-15 (2017) (stating that “internal displacement is likely to far outstrip cross-border displacement”).

¹⁰ Clarifying those requirements, see: Council Directive 2004/83/EC of Apr. 29, 2004, art. 9(2)(b), 2004 O.J. (L 304/12).

¹¹ McADAM, *supra* note 5, at 43.

¹² *Id.*

¹³ *Id.* at 44.

¹⁴ *Id.*

¹⁵ See U.N. Framework Convention on Climate Change, Dec. 2/CP.15, Copenhagen Accord, U.N. Doc. FCCC/CP/2009/11/Add.1, at 6, para. 3 (Mar. 30, 2010) (recognizing the different capabilities of States in adapting and preventing the deleterious effects of climate change and calling on developed nations to provide for financial resources, technology and capacity-building to support and assist developing nations).

¹⁶ BODANSKY ET AL., *supra* note 8, at 314-15.

¹⁷ I Gede Eka Sarjana, *Climate Change and Human Migration: Towards More Humane Interpretation of Refugee*, 2 UDAYANA JOURNAL LAW & CULTURE 220, 231-32 (2018) (arguing that because the current persecution standard is viewed in context of the actors that perpetuate the action and the “indiscriminate” nature of climate change, the standard is ill-equipped to address the concerns of climate refugees, and that the standard should be read more broadly to account for the real impacts on particularly vulnerable groups).

¹⁸ McADAM, *supra* note 5, at 45.

¹⁹ THE NANSEN INITIATIVE, I AGENDA FOR THE PROTECTION OF CROSS-BORDER DISPLACED PERSONS IN THE CONTEXT OF DISASTER AND CLIMATE CHANGE 14-15 (2015) (describing climate change as just one factor in the “multi-causal” analysis of human movement).

²⁰ Frank Biermann & Ingrid Boas, *Climate Change and Human Migration: Towards a Global Governance System to Protect Climate Refugees*, in 8 HEXAGON SERIES ON HUMAN AND ENVIRONMENTAL SECURITY AND PEACE, CLIMATE CHANGE, HUMAN SECURITY AND VIOLENT CONFLICT, CHALLENGES FOR SOCIETAL STABILITY, 292-93 (Jürgen Scheffran et al. eds., 2012).

²¹ Paul J. Smith, *Climate Change, Mass Migration and the Military Response*, 51 ORBIS: A JOURNAL OF WORLD AFFAIRS 557, 617 (2007).

²² Walter Kälin & Nina Schrepfer, *Protecting People Crossing Borders in the Context of Climate Change Normative Gaps and Possible Approaches*, UNHCR LEGAL AND PROTECTION POLICY RESEARCH SERIES (2012) at 54.

²³ Jane McAdam, *supra* note 5, at 43.

²⁴ Bodansky, *supra* note 9, at 314.

²⁵ Memorandum from U.N. High Commissioner for Refugees to UNHCR Field Offices, (July 22, 1998) (PR00/98/109).

²⁶ GRID Global Report on Internal Displacement 2, (IDMC Internal Displacement Monitoring Centre and the Norwegian Refugee Council) (2018).

²⁷ See *The Inter-Agency Standing Committee*, ISAC, (last accessed Nov. 15, 2020) <https://interagencystandingcommittee.org/the-inter-agency-standing-committee>.

²⁸ UNISDR Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters 1 (From the final report of the World Conference on Disaster Reduction (A/CONF.206/6) (2005).

²⁹ Third UN World Conference on Disaster Risk Reduction, *Sendai Framework for Disaster Risk Reduction 2015-2030*, UN, foreword (Mar. 18, 2020) <https://www.undrr.org/implementing-sendai-framework/what-sendai-framework>.

³⁰ Bodansky, *supra* note 9, at 320-21.

³¹ G.A. Res. 48/189, at 1 (Jan 20, 1994).

³² U.N. Framework Convention on Climate Change art. 4, (May 9, 1992).

³³ U.N. Framework Convention on Climate Change, COP 13 Decision, FCCC/CP/2007/6/Add.114 (March 2008) (establishing the Bali Road Map, including the Bali Plan of Action (Decision 1/CP.13) which urges countries to urgently mitigate and to “support urgent adaptation for the poorer countries,” available at <https://unfccc.int/process/conferences/the-big-picture/milestones/bali-road-map>).

³⁴ U.N. Framework Convention on Climate Change, COP 16 Decision, FCCC/CP/2010/7/Add.1 (March 2011).

³⁵ U.N. Framework Convention on Climate Change, The Warsaw International Mechanism, FCCC/CP/2015/L.9 (Dec. 2015).

³⁶ U.N. Framework Convention on Climate Change, Paris Agreement, FCCC/CP/2015/L.9 (Dec. 2015).

³⁷ Bodansky, *supra* note 9, at 11.

³⁸ See *Submissions: INDCs as Communicated by Parties*, UN CLIMATE CHANGE, (last accessed Nov. 22, 2020) <https://www4.unfccc.int/sites/submissions/indc/Submission%20Pages/submissions.aspx> (Showing in 2016, the Brazilian Environmental Ministry initiated the studies for the National Plan on Adaptation).

³⁹ U.N. Environment, *Global Environment Outlook GEO-6: Summary for Policymakers*, at 6-16 (2019).

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