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Comments on Proposed Rule, Repeal of Carbon Dioxide Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units

The Southern Environmental Law Center (SELC), Tennessee Clean Water Network, Coosa River Basin Initiative/Upper Coosa Riverkeeper, Tennessee Interfaith Power & Light, One Hundred Miles, Tennessee Citizens for Wilderness Planning, Altahama Riverkeeper, Upstate Forever, Save Our Saluda, Tennessee Chapter Sierra Club, Southern Alliance for Clean Energy, Environment Georgia, Alabama Rivers Alliance, Gasp, Coastal Conservation League, Southface, and South Carolina Wildlife Federation (collectively, "Southeastern Conservation Groups") respectfully submit these comments on the Environmental Protection Agency's proposal to repeal the Clean Power Plan ("Repeal Proposal"). Because failing to adequately address the impacts of climate change poses a genuine threat to our region, and implementing the Clean Power Plan would begin to address a chief cause of those impacts, we strongly oppose the Repeal Proposal.

Southeastern Conservation Groups have a significant interest in the Clean Power Plan and its implementation.[1] If the six Southeastern states of Tennessee, Virginia, North Carolina, South Carolina, Georgia, and Alabama were viewed as a country, it would rank eighth in the world in energy-related greenhouse gas pollution contributing to global warming, with the bulk of its emissions coming from fossil-fuel fired power plants.[2] At the same time, the Southeast is home to unique natural areas—from the spruce-fir forests of the Appalachians to the coastal estuaries of our barrier islands—that are especially vulnerable to the effects of a warming

[1] For more information about the work of Southeastern Conservation Groups, please see "About Our Organizations," pp. 22-24, below.
[2] Calculations based on emissions data compiled from the Energy Information Agency (EIA) for the year 2015. U.S. EIA, *State Carbon Dioxide Emissions Data*, Oct. 24, 2017, http://www.eia.gov/environment/emissions/state; U.S. EIA, *Total Primary Energy Production*, https://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=90&pid=44&aid=8. If it were viewed as a nation, our six-state region would rank seventh in greenhouse gas pollution from all sources.

climate.[3] These effects will disproportionately burden our regional economy, in particular by raising sea levels along our shorelines, increasing storm damage, and causing weather-related deaths.[4] Our continued reliance on fossil fuels to produce electricity is stressing and altering our environment, and that means not only losing our traditional natural heritage, but jeopardizing our economy and the quality of life it sustains.

SELC has previously participated in several rulemaking dockets related to the Clean Power Plan, including providing comments on the Draft Rule, the Model Trading Rule, and the Clean Energy Incentive Program. These previous sets of comments highlighted the trajectory in our states away from coal-fired power plants and toward clean, renewable energy. We offered our previous comments to demonstrate, based on the knowledge we have gained in our decades of experience participating in state energy regulatory proceedings and other legal and policy matters concerning electricity generation and use in the Southeast, that the reasonable carbon dioxide emission targets established by the Clean Power Plan would be easily achievable in our region. This is no less true today than it was when EPA finalized the Clean Power Plan in 2015.

In the comments below, Southeastern Conservation Groups explain our view that (1) the Repeal Proposal is a rulemaking designed to reach a predetermined outcome; (2) the Clean Power Plan would support rather than "transform" the economic trajectory and state regulation of the utility sector in the Southeast; and (3) without efforts to reduce carbon dioxide pollution from power plants and other sectors of the economy, our communities in the South stand to suffer disproportionately the economic, health, and environmental impacts of climate change in the United States.

I. The Repeal Proposal, the Advance Notice of Proposed Rulemaking, and EPA's litigation behavior belie the Agency's claim to be faithfully implementing the Clean Air Act.

In the Repeal Proposal, the Agency proposes to constrict its ability to reduce carbon dioxide pollution from existing power plants using only "emission reduction measures that can

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[3] L.M. Carter et al., Ch. 17: Southeast and the Caribbean [hereinafter "Ch. 17: Southeast and the Caribbean"] 2014 *In Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo et al., eds., U.S. Global Change Research Program, 396–417, doi:10.7930/J0NP22CB, *available at* http://nca2014.globalchange.gov/report/regions/southeast [hereinafter "*Climate Change Impacts in the United States*"].

[4] S. Hsiang et al., *Estimating Economic Damage from Climate Change in the United States*, 356 SCIENCE 1362, 1362–1369 (June 2017).

be *applied to or at* an individual stationary source."[5] EPA's crimped interpretation of its authority to establish emissions reductions for carbon dioxide pollution in the Repeal Proposal radically departs from its previous interpretation of its own authority, as reflected in the Clean Power Plan. In that final rule, EPA established emission reduction requirements based on a combination of (1) heat rate improvements at existing coal plants; (2) substituting generation from existing coal-fired plants with generation from natural gas plants; and (3) substituting generation from all existing fossil fuel-fired plants with generation from renewable sources.[6] Under the Repeal Proposal, EPA proposes to tie its own hands so that it can base emission requirements only on the first category of measures considered under the CPP, and not any other, far more effective measures that could be taken "outside the fence line" of power plants.

Meanwhile, in December 2017, EPA issued an Advance Notice of Proposed Rulemaking (ANPRM), in which the Agency repeatedly instructed the public that it was seeking comments on how to regulate carbon dioxide pollution from existing fossil-fuel fired power plants assuming that it would do so consistent with its proposal to repeal the CPP, if at all.[7] As EPA itself acknowledged, however, the Repeal Proposal remained simply a proposed rule for which the Agency was accepting public comment until April 26, 2018—well after the deadline the Agency established for submitting comments on the ANPRM.

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[5] U.S. Envtl. Prot. Agency, Proposed Rule, Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, Docket No. EPA-HQ-OAR-2017-0355, 82 Fed. Reg. 48,035, 48,038–39 (Oct. 16, 2017) (emphasis in original) [hereinafter "Repeal Proposal"].

[6] U.S. Envtl. Prot. Agency, Final Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,707 (Oct. 23, 2015) [hereinafter "Clean Power Plan"].

[7] *See, e.g.*, U.S. Envtl. Prot. Agency, Advance Notice of Proposed Rulemaking, State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, Docket No. EPA-HQ-OAR-2017-0545, 82 Fed. Reg. 61,510–11(Dec. 28, 2017) [hereinafter "ANPRM"] ("The EPA also explains in [the repeal] proposal that the Agency is considering the scope of its legal authority to issue a potential new rule and, in this ANPRM, is soliciting information on systems of emission reduction that are in accord with the legal interpretation discussed in the CPP repeal proposal . . . ."); *id.* at 61,510 (soliciting comment on "application, in the specific context of limiting GHG emissions from existing EGUs, of reading CAA section 111(a)(1) as limited to emission measures that can be applied to or at a stationary source, at the source-specific level" and clarifying that the Agency is not soliciting comments on its legal interpretation generally in the ANPRM); *id.* at 61,511 ("This ANPRM further solicits comment…on the proper application in this context of the interpretation of CAA section 111 contained in the proposed repeal of the CPP—under which a BSER is limited to measures that apply to and at individual source, on the source-specific level . . . ."); *id.* at 61,512 ("The EPA is not soliciting comment through this ANPRM on this proposed interpretation: rather, comments on interpreting CAA section 111(a)(1) should be submitted on the CPP repeal proposal. Here, the EPA is requesting comment on how the program should be implemented assuming adoption of that proposed interpretation."). *See also* Repeal Proposal 82 Fed. Reg. at 48,038–39 (basis for repeal is change in legal interpretation of "best system of emission reduction" to reflect only "emission reduction measures that can be *applied to or at* an individual stationary source" (emphasis in original)).

The Clean Air Act requires EPA to allow, review, and respond to public comment on a proposed rule.[8] These are not meaningless requirements. Rather, the purpose of notice and comment rulemaking is for the Agency to consider public comments before finalizing a rule that will balance all of the relevant interests.[9] Yet, the Agency's directive in the ANPRM to commenters to assume only source-specific options for reducing carbon dioxide emissions from existing power plants casts doubt on EPA's open-mindedness on the issue of the scope of its authority in the context of the Repeal Proposal. Given its statements in the ANPRM, it is unclear whether the Agency will consider and weigh all public comments regarding the basis for the Repeal Proposal, as required by the Clean Air Act.[10] The ANPRM therefore erodes public trust in the Agency's rulemaking process regarding the Repeal Proposal.

The Repeal Proposal and the restrictions set forth in the ANPRM also raise larger concerns about the Agency's general approach to implementing the Clean Air Act. The Agency must exercise its authority and fulfill its obligations under the Clean Air Act consistent with Congress' intent that EPA "address and remedy the dangers posed by air pollution to human beings and the environment." [11] But EPA is not solely responsible for determining how it must implement the Clean Air Act as envisioned by Congress. The federal courts, "in particular the Supreme Court and the Court of Appeals for the District of Columbia Circuit,"[12] often ultimately determine what the law requires of EPA.

In fact, numerous parties have already appealed to the courts regarding the scope of EPA's authority and obligation to regulate carbon dioxide pollution from existing power plants under Section 111(d) of the Clean Air Act. In 2016, at the request of petitioners challenging the CPP, the United States Supreme Court issued a stay of the Clean Power Plan pending judicial review.[13] The merits of the challenges, including the argument that EPA exceeded its authority under Section 111(d), have been fully briefed and argued in a case pending in the United States

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[8] 42 U.S.C. § 7607(d).

[9] *See* Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667, 1683 (1975) ("[A]gencies must consider all of the various interests affected by their decisions as an essential predicate to 'balancing all elements essential to a just determination of the public interest.'" (quoting *Airline Pilots Ass'n v. Civil Aeronautics Bd*., 475 F.2d 900, 905 (D.C. Cir. 1973))).

[10] *Cf.* States of California, Delaware, Hawaii, Illinois, Maine, Maryland, New Mexico, New York, Oregon, Vermont, and Washington, the Commonwealth of Massachusetts, the District of Columbia, the County of Broward (Florida), and the Cities of Boulder (Colorado), Chicago (Illinois), New York (New York), Philadelphia (Pennsylvania), and South Miami (Florida), Comments on Administrator Scott Pruitt's Improper Prejudgment of Outcome of Proposed Repeal of Clean Power Plan, EPA-HQ-OAR-2017-0355-7861 (Jan. 9, 2018) (outlining statements by Administrator Pruitt that indicate that he has prejudged the outcome of the Repeal Proposal).

[11] ANPRM, 82 Fed. Reg. at 61,508.

[12] *Id.*

[13] *West Virginia v. U.S. Envtl. Prot. Agency*, 136 S.Ct. 1000 (2016).

Court of Appeals for the District of Columbia.[14] But EPA has actively sought, so far successfully, to prevent the judicial process from playing out as it normally would. Rather than seeking a definitive ruling from the courts regarding how the Agency may use its authority under Section 111(d) to protect the public from carbon dioxide pollution, EPA has sought to take that determination out of the courts for as long as possible. The Agency has repeatedly requested abeyance of the pending case to review the Clean Power Plan, issue the Repeal Proposal, and, before the Repeal Proposal has even been finalized, to initiate a replacement rulemaking that takes as its starting point a crimped view of its authority that may be far less than what EPA can and must do to reduce carbon dioxide pollution from existing power plants.[15]

In short, the Repeal Proposal, the ANPRM, and EPA's litigation behavior make clear that the Agency's change in position is not rooted in respect for the bounds of its authority under tenets of administrative law as EPA claims. Rather, the Repeal Proposal is a rulemaking designed to reach a predetermined outcome.

II. In the Southeast, economic and political considerations weigh in favor of the Clean Power Plan—not the Repeal Proposal.

In the Repeal Proposal, EPA asserts that its "proposed" legal interpretation "is more consistent with certain broader policy concerns of the Agency and stakeholders."[16] EPA specifically cites "potentially serious economic and political implications arising from the CPP's reliance on measures that extend beyond those that can be applied at and to a particular, individual source, such as generation shifting...."[17] The EPA also expresses concern that it may have previously interpreted section 111(d) in a manner that "infringes upon the roles of the states" in regulating "the energy sector *qua* energy sector."[18]

In the sections that follow, we examine the economic and political implications of regulating carbon dioxide pollution from existing power plants in our region based on our deep familiarity with state energy regulation and the environment in the Southeast. We conclude that the Repeal Proposal would have far greater economic, political, and human impact in our communities than implementing the reasonable carbon dioxide emission reduction goals of the Clean Power Plan.

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[14] *West Virginia v. U.S. Envtl. Prot. Agency*, No. 15-1363 (and consolidated cases) (D.C. Cir.).
[15] *See, e.g.*, Status Report filed by Defendant Environmental Protection Agency, *West Virginia v. U.S. Envtl. Prot. Agency*, No. 15-1363 (D.C. Cir. Jan. 10, 2018) (describing repeated requests for abeyance).
[16] Repeal Proposal, 82 Fed. Reg. at 48,042.
[17] *Id*.
[18] *Id*.

A. The Clean Power Plan would support rather than "transform" the economic and policy trajectory in Southeastern states toward clean, renewable energy.

Contrary to EPA's claims, the Clean Power Plan does not in any way threaten the economy or the balance of power between state and federal energy regulation in the Southeast. Our region is dominated by traditionally regulated, vertically integrated investor-owned utilities. These utilities generally are obligated to develop long-range energy plans based on least-cost planning principles. In most cases, the utilities' plans are subject to review and approval by state public service commissions. Thus, the utilities' most recent long-range plans are a reasonable starting point for evaluating EPA's claims against the reality in our region.

When EPA proposed the draft Clean Power Plan in 2014, SELC submitted detailed comments showing that the proposed carbon dioxide emission targets were easily within reach in our states.[19] The final carbon dioxide emission targets adopted by EPA in 2015 are just as easily within reach in the Southeast today. A forecast based on the Southeastern utility sector's business-as-usual plans and energy policies projects that our states' power plants will emit carbon dioxide emissions roughly totaling 244,371,449 short tons by 2030, significantly below our region's baseline of 301,470,616 short tons.[20] This projection accounts for reductions in solar deployment based on the tariff on solar panels recently ordered by the Trump Administration.[21]

Utilities in our region are already engaging in exactly the kind of "generation-shifting" foreseen by the Clean Power Plan and plan to do more generation-shifting towards lower-carbon resources. As Tennessee Valley Authority CEO Bill Johnson explained in June 2017, "We

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[19] Comment from Kurt Ebersbach, Southern Environmental Law Center, to U.S. Envtl. Prot. Agency, "Attn: Docket ID No. EPA-HQ-OAR-2013-0602," Dec. 1, 2014 (Georgia); Comment from Angela Navarro, Southern Environmental Law Center, et al., to U.S. Envtl. Prot. Agency, "Attn: Docket ID No. EPA-HQ-OAR-2013-0602," Dec. 1, 2014 (Virginia); Comment from Keith A. Johnson, Southern Environmental Law Center, et al., to U.S. Envtl. Prot. Agency, "Attn: Docket ID No. EPA-HQ-OAR-2013-0602," Dec. 1, 2014 (Alabama); Comment from Frank Rambo and Angela Navarro, Southern Environmental Law Center, to U.S. Envtl. Prot. Agency, "Attn: Docket ID No. EPA-HQ-OAR-2013-0602," Dec. 1, 2014 (Tennessee); Comment from Myra Blake et al., Southern Environmental Law Center, to U.S. Envtl. Prot. Agency, "Attn: Docket ID No. EPA-HQ-OAR-2013-0602," Dec. 1, 2014 (North Carolina); Comment from Blan Holman, Southern Environmental Law Center, et al., to U.S. Envtl. Prot. Agency, "Attn: Docket ID No. EPA-HQ-OAR-2013-0602—South Carolina," Dec. 1, 2014 (South Carolina).

[20] The Clean Power Plan's mass-based goal with new source complement allotted 239,255,857 short tons to our six-state region.

[21] This projection accounts for reductions in solar deployment based on the tariff on solar panels recently ordered by the Trump Administration. *See* U.S. Trade Rep., Fact Sheet, Section 201 Cases: Imported Large Residential Washing Machines and Imported Solar Cells and Modules (Jan. 22, 2018), https://ustr.gov/sites/default/files/files/Press/fs/201%20Cases%20Fact%20Sheet.pdf.

started down this path before anyone ever heard of the Clean Power Plan or the Paris climate agreement by looking for the cheapest way to serve customers."[22] The on-the-ground reality in the Southeast is that the generation-shifting employed by EPA in 2015 to establish performance standards for existing power plants is consistent with business-as-usual, least-cost utility planning.

The continuing strong performance of the solar market in the Southeast bolsters our region's projected carbon dioxide emissions reductions. When the Clean Power Plan was proposed in 2014, our region had less than 1 GW of solar installed.[23] As of June 2017, more than 5 GW of solar are installed in the Southeast.[24] Based on capacity additions projected in our utilities' existing long-range plans and similar commitments, 11.7 GW of solar is projected to be installed in the Southeast by 2030, solar tariffs notwithstanding.[25]

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[22] Scott DiSavino, *TVA cuts emissions and costs by shutting coal, adding natgas plants*, Reuters, June 1, 2017, https://www.reuters.com/article/us-utilities-tva-natgas/tva-cuts-emissions-and-costs-by-shutting-coal-adding-natgas-plants-idUSKBN18T06C.

[23] Solar Energy Indus. Assn., Top 10 Solar States 2014, https://www.seia.org/sites/default/files/2014top10-NC.png (noting that North Carolina, which had 396.6 MW installed capacity in 2014, had more installed solar than all other Southeastern states combined).

[24] Solar Energy Indus. Assn., Solar State by State, https://www.seia.org/states-map. Six Southeast states tabulated by SELC in June 2017).

[25] Tabulated by SELC in April 2018, based on capacity additions identified in the following integrated resource plans and data from the following sources: *In re* Alabama Power Company, Order, Ala. Pub. Serv. Comm'n, No. 32382 (2015); *In re* Alabama Power Company, Petition, Ala. Pub. Serv. Comm'n, No. 32382 (2015); Alabama Power, 2016 Integrated Resources Plan Summary Report (2016); Ga. Power Co., 2016 Integrated Resource Plan and Application for Decertification of Plant Branch Units 3 and 4, Plant Mitchell Units 3, 4A and 4B, Plant Kraft Units 1 CT, and Intercession City CT; Docket No. 40161 (Jan. 29, 2016); S.C. Elec. & Gas Co., 2017 Integrated Resources Plan, S.C. Pub. Serv. Comm'n, Docket No. 2017-___-E (Feb. 28, 2017); S.C. Pub. Serv. Auth. (Santee Cooper), Integrated Resources Plan (Nov. 2016); Duke Energy Carolinas, LLC., South Carolina Integrated Resource Plan: Annual Report (Sept. 1, 2017); Duke Energy Progress, South Carolina Integrated Resource Plan: Annual Report (Nov. 1, 2017); Tennessee Valley Authority, Integrated Resource Plan (2015);; Appalachian Power, Integrated Resource Planning Report, Va.State Corp.. Comm'n, Case No. PUR-2017-00045 (May 1, 2017); Va. Elec. Power Co., Integrated Resources Plan for 2017, Va. State Corp. Comm'n, No. PUR-2017-00051, Docket No. E-100, Sub 147 (May 1, 2017); Dominion to Put 9 Power-Generating Units on Reserve Status, Jan, 2018, https://www.usnews.com/news/best-states/virginia/articles/2018-01-17/dominion-to-put-9-power-generating-units-on-reserve-status; EIA, Annual Electric Power Industry Report: Net Metering, Non Net Metering Distributed (2016), https://www.eia.gov/electricity/data/eia861 (baseline distributed solar installed capacity); White House, Fact Sheet, Section 201 Cases: Imported Large Residential Washing Machines and Imported Solar Cells and Modules (Jan. 22, 2018) (solar tariff assumption); Methodology developed by The Greenlink Group (projection of future distributed solar installed capacity); SERC VACAR: Virginia, North Carolina, and South Carolina https://www.eia.gov/outlooks/aeo/data/browser/#/?id=62-AEO2017&region=3-16&cases=ref2017&start=2015&end=2050&f=A&linechart=ref2017-d120816a.5-62-AEO2017.3-16&map=&sourcekey=0; SERC Southeastern: Alabama and Georgia https://www.eia.gov/outlooks/aeo/data/browser/#/?id=62-AEO2017&region=3-

The trajectory toward cleaner energy in the Southeast is consistent with the rationale EPA provided in finalizing the Clean Power Plan. EPA recognized that utilities across the country were shifting away from coal and toward renewable energy:

> The EPA's survey of trends and actions already being taken in the utility power sector indicated that RE generating capacity and generation have grown rapidly in recent years, in part because of the environmental benefits of shifting away from fossil fuel-fired generation and in part because of improved economics of RE generation relative to fossil fuel-fired generation.[26]

For this reason, EPA included increasing renewable energy generation as a "building block" in establishing the performance standards in the Clean Power Plan.[27] But EPA did not dictate that our states had to shift generation to renewable energy or natural gas. Rather, the utilities in our states have decided to "generation-shift" based on their own least-cost planning, in most cases with the blessing of state public utility commissions.

In the proposed Regulatory Impact Analysis (RIA) that purports to support the Repeal Proposal, EPA itself acknowledges that this economic trajectory has become even more pronounced since the Agency finalized the rule in 2015:

> The trends in projected emissions from the electric power sector are consistent with the projected shift in generation away from higher-emitting generating sources to lower-emitting generating sources observable in future scenarios that assume no implementation of the CPP.[28]

EPA's discussion in the RIA is based on the updated forecast provided in the U.S. Energy Information Agency's Annual Energy Outlook 2017 (AEO2017). EPA concludes that several factors, including shifting generation from coal to renewables and natural gas, would lead to fewer carbon dioxide emissions and lower compliance costs:

14&cases=ref2017&start=2015&end=2050&f=A&linechart=ref2017-d120816a.5-62-AEO2017.3-14&map=&sourcekey=0; SERC Central: Tennessee https://www.eia.gov/outlooks/aeo/data/browser/#/?id=62-AEO2017&region=3-15&cases=ref2017&start=2015&end=2050&f=A&linechart=ref2017-d120816a.5-62-AEO2017.3-15&map=&sourcekey=0.

[26] Clean Power Plan, 80 Fed. Reg. at 64,729 (discussing why renewable energy is part of the best system of emission reduction).

[27] *Id*.

[28] U.S. Envtl. Prot. Agency, Regulatory Impact Analysis for the Review of the Clean Power Plan: Proposal 110 (Oct. 2017) [hereinafter "RIA"].

> Together, these factors contribute to an expectation that updated EPA analysis would project fewer CO2 emissions in the absence of the CPP than was projected in the 2015 RIA. It follows, that, on average, compliance with CPP mass-based emissions targets would be less costly since fewer reductions would be required…. [A]lmost half of the CO2 reductions AEO2015 projected the CPP to obtain are now projected to occur in AEO2017 without the CPP.[29]

As discussed above, our utilities' business-as-usual plans in the Southeast provide further support for EPA's conclusion that, if it revisited the issue, compliance costs for the CPP would be lower than projected in 2015.

In fact, the "business as usual" projections included in current utility plans in the Southeast may actually *underestimate* additional generation-shifting that may occur. The utility plans we analyzed do not take into account additional measures being considered by states in the Southeast to address carbon dioxide emissions from the electric sector. For example, the Virginia Department of Environmental Quality has proposed a rule that would require additional carbon dioxide emission reductions in the state, including from the electric sector.[30] The plan proposes that Virginia link with the Regional Greenhouse Gas Initiative (RGGI), a pre-existing cap-and-trade program involving nine East Coast states. Linking with RGGI will help Virginia meet its proposed target of a 33-34 million short ton cap on carbon dioxide emissions, starting in 2020. Then, over the next ten years, the cap would drop 3 percent each year. The proposed cap would apply to carbon dioxide emissions from existing and new power plants. In addition, the State of North Carolina has joined the U.S. Climate Alliance, a bipartisan group of states is committed to reducing their share of the U.S. greenhouse gas emission reduction targets in the Paris Agreement.[31]

In summary, far from "transforming" our local economies or shifting regulation over the energy sector away from our states, the Clean Power Plan would largely support plans that have already been approved by our state regulatory commissions or are being considered by our state political leaders.

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[29] *Id.* at 118.
[30] Va. Air Pollution Control Bd., Proposed Regulation, 9VAC5-140, Regulation for Emissions Trading Programs (adding 9VAC5-140-6010 through 9VAC5-140-6430), 34 Va. Regs. 924 (Jan. 8, 2018), *available at* http://www.deq.virginia.gov/Programs/Air/GreenhouseGasPlan.aspx.
[31] N.C. Governor Roy Cooper, Press Release, North Carolina Joins 14 States in Bipartisan U.S. Climate Alliance, Sept. 20, 2017, *available at* https://governor.nc.gov/news/north-carolina-joins-14-states-bipartisan-us-climate-alliance.

Although our region is well on its way to meeting the 2030 targets, implementing the Clean Power Plan would provide the regulatory certainty required to actually achieve the targets and reduce carbon dioxide emissions even further.[32] Reducing carbon dioxide emissions from the electric sector even further is critically important to the Southeast, because, as described in below, we stand to suffer disproportionate economic, environmental, and human damage from the effects of climate change in the United States.

B. Repealing the Clean Power Plan is more likely to result in the economic and political upheaval the EPA claims to fear, as our Southeastern communities grapple with the increasingly dire effects of climate change.

In contrast to implementing the Clean Power Plan, the Repeal Proposal, if adopted, could ultimately prove ruinous to our Southeastern communities. Carbon dioxide emissions from the electric sector account for 29% of carbon dioxide emissions in the United States.[33] By failing to address this harmful pollution, EPA's Repeal Proposal threatens to allow it to remain unchecked, contributing to climate conditions that are already causing sea level rise and intense weather events in our region.

In the absence of responsible efforts to reduce global and domestic carbon dioxide emissions, such as the Clean Power Plan, the effects of climate change already being suffered in our region are poised to get much worse. By the end of this century, the 12,500 miles of tidal shoreline along SELC's region could be affected by over 6 feet of sea level rise by intermediate estimates. Our coastline has already experienced 1 foot of rise on average in the last century, and has been besieged with worsening storm surge and associated damages.[34] As we are already experiencing, the severity of storms and the damages they incur to our communities will continue to increase.[35] Our communities are also projected to be particularly hard-hit by

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[32] Additional carbon emission reductions beyond pledged national commitments in the Paris Agreement are necessary to reduce climate risk associated with unprecedented climate extremes. *See* N.S. Diffenbaugh et al., *Unprecedented Climate Events: Historical Changes, Aspirational Targets, and National Commitments*, 4 Sci. Adv. eaao3354 (2018).

[33] U.S. Envtl. Prot. Agency, Greenhouse Gas Emissions: Sources of Greenhouse Gas Emissions, https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions (last updated Apr. 11, 2018).

[34] According to gauge observational data not modeling. S. Jevrejeva et al., *Sea Level Projections to AD2500 with a New Generation of Climate Change Scenarios*, 80-81 GLOBAL & PLANETARY CHANGE 14 (2012), doi:10.1016/j.gloplacha.2011.09.006.

[35] Probabilistically, the odds of an increased occurrence of very intense tropical cyclones are greater than 50% in the Atlantic basin. P.J. Webster et al., *Changes in Tropical Cyclone Number, Duration, and Intensity in a Warming Environment*, 309 Science 1844 (2005), doi: 10.1126/science.1116448; NOAA, Global and Regional Sea Level Rise Scenarios for the United States, CO-OPS Technical Report (Jan. 2017); Kevin J.E. Walsh et al., *Tropical Cyclones and Climate Change*, 7 WIREs Climate Change 65 (2015), https://doi.org/10.1002/wcc.371; Thomas R. Knutson et al.,

increases in deaths attributed to warming and other economic damages associated with climate change, resulting in our region becoming poorer relative to other regions of the United States.[36] In short, it is EPA's Repeal Proposal, rather than the Clean Power Plan itself, that would have "potentially serious economic and political implications" for the Southeast.

The threat of repealing the Clean Power Plan looms especially large for our communities because EPA has not committed to replacing it at all, potentially leaving harmful carbon dioxide emissions from the electric sector unaddressed for the foreseeable future. EPA states in the Repeal Proposal that the agency "continues to consider whether it should issue another CAA section 111(d) rule addressing GHG emissions from existing EGUs…."[37] The Advance Notice of Proposed Rulemaking issued by the agency in late December 2017 is similarly noncommittal: "…EPA continues to consider the possibility of replacing certain aspects of the CPP…."[38] On a new webpage, EPA characterizes the Repeal Proposal as a "deregulatory action" it is taking in response to President Trump's directive to "reduce regulation."[39] These statements leave our communities with little assurance that EPA will meaningfully address the carbon dioxide pollution that threatens to irrevocably alter our lives and our economy in the Southeast.

1. In the United States, the Southeast is projected to bear disproportionate economic, environmental, and human damage from climate change.

In 2009, in response to the ruling by the United States Supreme Court in *Massachusetts v. EPA*, 549 U.S. 497 (2007), EPA determined that elevated levels of carbon dioxide and other greenhouse gases in the atmosphere endanger public health and welfare and should therefore be regulated under the Clean Air Act.[40] The harms posed by carbon dioxide pollution are pervasive and severe.[41] Based on the vast weight of scientific evidence, EPA found that

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Tropical Cyclones and Climate Change, 3 Nature Geoscience 157 (2010), doi:10.1038/ngeo779; *Climate Science Special Report: Fourth National Climate Assessment, Volume I* 12–34 (D.J. Wuebbles et al., eds. 2017), U.S. Global Change Research Program, doi: 10.7930/J0DJ5CTG [hereinafter "CSSR"].

[36] Hsiang et al. at 1362.

[37] Repeal Proposal, 82 Fed. Reg. at 48,038.

[38] ANPRM, 82 Fed. Reg. at 61,507, 61,509.

[39] U.S. Envtl. Prot. Agency, Laws & Regulations: EPA Deregulatory Actions, https://www.epa.gov/laws-regulations/epa-deregulatory-actions (last updated Apr. 10, 2018).

[40] *See* U.S. Envtl. Prot. Agency, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,499, 66,516 (Dec. 15, 2009) [hereinafter "Endangerment Finding"]. Of the six greenhouse gases identified in EPA's Endangerment Finding, CO_2, along with methane, ranks as the most important directly emitted pollutant. *Id.* at 66,517.

[41] *See id.* at 66,523 (linking "human emissions and resulting elevated atmospheric concentrations of . . . greenhouse gases to observed global and regional temperature increases and other climate changes").

"climate change associated with elevated atmospheric concentrations of carbon dioxide and the other well-mixed greenhouse gases have the potential to affect essentially every aspect of human health, society and the natural environment."[42] In making its endangerment finding, EPA specifically found that the harmful effects of human-induced climate change cut across multiple sectors and geographic areas, affecting "human health, air quality, food production and agriculture, forestry, water resources, sea level rise and coastal areas, the energy sector, infrastructure and settlements, and ecosystems and wildlife."[43]

In late 2017, the U.S. Global Change Research Program, an authoritative research effort comprising 13 federal agencies,[44] confirmed and concluded in the *Climate Science Special Report: Fourth National Climate Assessment, Volume I*, that "based on extensive evidence… it is extremely likely that human activities, especially emissions of greenhouse gases, are the dominant cause of the observed warming since the mid-20th century. For the warming over the last century, there is no convincing alternative explanation supported by the extent of the observational evidence."[45]

The current and projected future consequences of man-made climate change are particularly dire in the Southeast. In the Third National Climate Assessment, published in 2014, U.S. Global Change Research Program researchers concluded that the Southeast is exceptionally vulnerable to sea level rise, extreme heat events, hurricanes, and decreased water availability.[46] Rising global temperatures already are producing more frequent and more intense weather events, such as hurricanes and other storms, causing enormous damage to people, the environment, and the economy. As the figure below illustrates, the Southeast has already experienced disproportionate damage from such events.[47]

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[42] *Id.*
[43] *Id.*
[44] The thirteen federal agencies involved in the U.S. Global Change Research Program include the Department of Agriculture, the Department of Commerce (NOAA), the Department of Defense, the Department of Energy, the Department of Health and Human Services, the Department of the Interior, the Department of State, the Department of Transportation, the Environmental Protection Agency, the National Aeronautics and Space Administration, the National Science Foundation, the Smithsonian Institution, and the U.S. Agency for International Development. *See* U.S. Global Change Res. Program, About this Report, *in* U.S. Global Change Res. Program, Climate Science Special Report (2017), https://science2017.globalchange.gov/chapter/front-matter-about.
[45] D.J. Wuebbles et al., *Executive summary*, *in* CSSR 12–34.
[46] Ch. 17: Southeast and the Caribbean; *Climate Change Impacts in the United States*, at 396-417. The final version of Volume II of *The Fourth National Climate Assessment* is expected to be published in late 2018. *See* U.S. Global Change Res. Program, *About NCA4 Vol. II*, https://www.globalchange.gov/content/nca4-planning (last visited Apr. 25, 2018). A draft is currently available but not citable.
[47] *Climate Change Impacts in the United States*, at 397.

1980-2017 Billion-Dollar Weather and Climate Disasters By State (CPI-Adjusted)

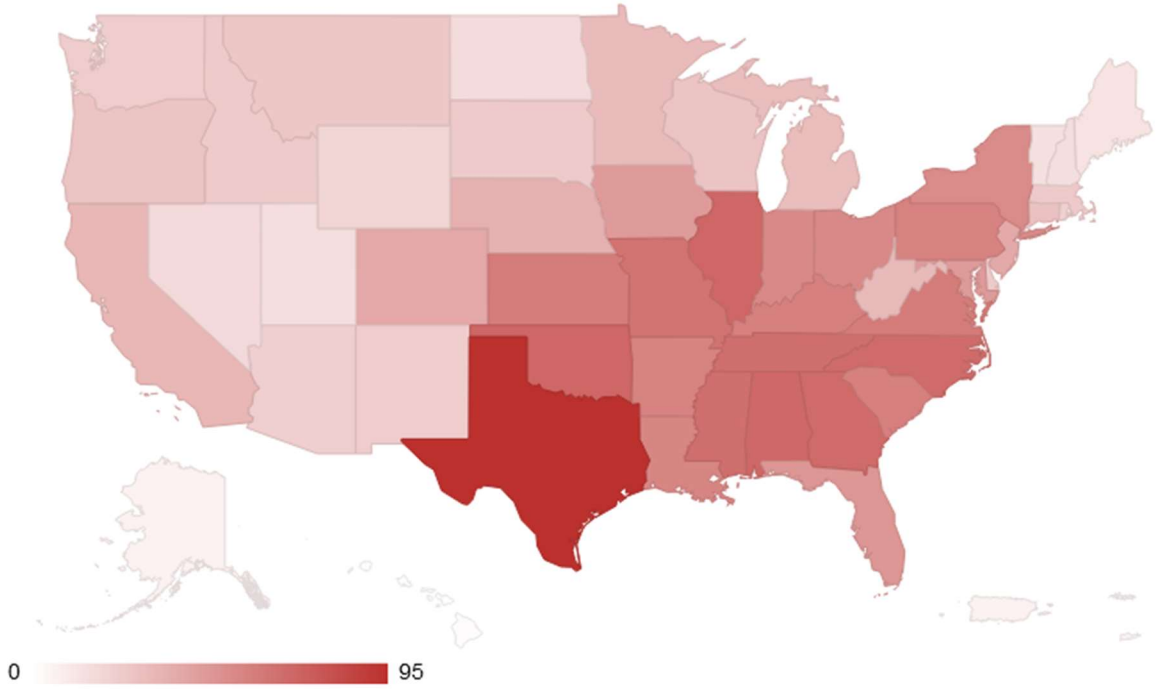

Figure Source: NOAA NCEI.[48]

Category 4 and 5 hurricanes in the North Atlantic and the amount of rain falling in very heavy precipitation events have increased over recent decades and are projected to increase even further.[49] Heavy precipitation induces more floods, causing deaths, injuries, water-borne diseases, and mental health problems, such as post-traumatic stress disorders.[50]

Higher average temperatures increase the likelihood of extreme heat waves, causing greater numbers of deaths and illnesses.[51] These increased temperatures also will adversely

[48] NOAA Nat'l Ctrs. Envtl. Info. (NCEI), U.S. Billion-Dollar Weather and Climate Disasters (2018), https://www.ncdc.noaa.gov/billions.
[49] *Climate Change Impacts in the United States*, at 397.
[50] U.S. Envtl. Prot. Agency, Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, 77 Fed. Reg. 22,393, 22,402 (Apr. 13, 2012).
[51] *Id.*

affect air quality, raising ground-level ozone concentrations and associated premature deaths, acute cases of bronchitis, heart attacks, asthma attacks, and other respiratory illnesses.[52]

In addition, "[l]arge areas of the country are at serious risk of reduced water supplies, increased water pollution, and increased occurrence of extreme events such as floods and droughts."[53] In the Southeast, continued urban development and expansion of irrigated agriculture increase water demand while higher temperatures increase evaporative losses.[54] Rising temperatures are expected to escalate harmful blooms of algae and disease-causing agents in inland and coastal waters, including the Gulf of Mexico.[55] Coastal areas face rising sea levels and more intense and damaging coastal storms and storm surges.[56] Large numbers of Southeastern cities, roads, railways, ports, airports, and water supplies are vulnerable to the impacts of sea level rise.[57] In short, "[o]ver the 21st century, climate change will fundamentally rearrange U.S. ecosystems."[58] As with most environmental risks, these harms will disproportionately burden children, the elderly, and the poor.[59]

More recent research analyzing the distribution of the economic damage associated with climate change throughout the United States confirms that lower-income communities, and particularly communities in the Southeast, will bear the brunt. Nationwide, median climate damages "are systematically larger in low-income counties…," ranging from 2 to 19.6 percent of county income for in the poorest third of counties, as compared to -1.2 to 6.8 percent of county income for the richest third of counties.[60] The same study observes that "[b]ecause losses are largest in regions that are already poorer on average, climate change tends to increase preexisting inequality in the United States."[61] The map below illustrates the disproportionately high cost of climate damages that is projected to be borne by our Southeastern communities.

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[52] *Id*.
[53] *Id.*
[54] *Climate Change Impacts in the United States*, at 405.
[55] *Id*. at 404.
[56] 77 Fed. Reg. at 22,402.
[57] *Climate Change Impacts in the United States*, at 400.
[58] 77 Fed. Reg. at 22,402.
[59] Endangerment Finding, 74 Fed. Reg. at 66,526.
[60] Hsiang et al. at 1362–1369.
[61] *Id.*

What Climate Change Will Cost Every U.S. County, 2080–2099

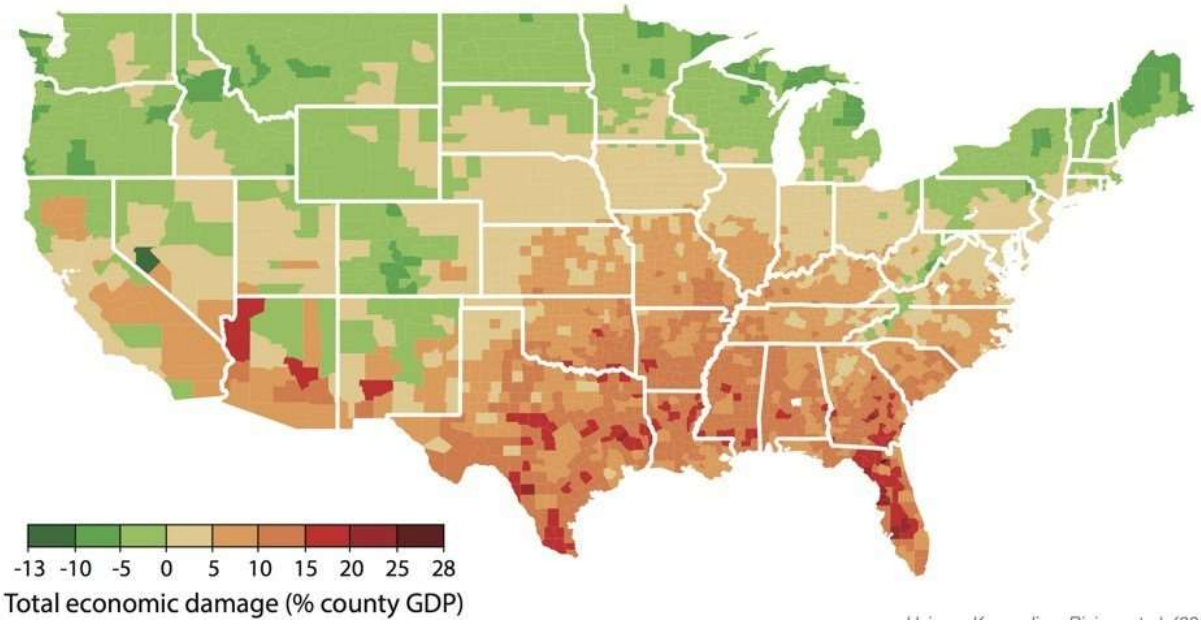

Image: Hsiang, et al, as reproduced in The Atlantic.[62]

The Southeast is projected to be particularly hard-hit by increases in deaths attributed to warming, in addition to decreased agricultural yields and lower worker productivity.[63] Communities in the Southeast up to and including Charlotte, North Carolina, "could see their mortality rate rise by more than 20 people out of every 100,000."[64] In economic terms, these devastating circumstances are projected to result in a "net transfer of value" from the Southeast to northern regions of the United States.[65] In the plain language of the lead author of the study, "We are really sure the South is going to get hammered [by climate change]."[66]

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[62] Robinson Meyer, *The American South Will Bear the Worst of Climate Change's Costs*, THE ATLANTIC (June 29, 2017), https://www.theatlantic.com/science/archive/2017/06/global-warming-american-south/532200.
[63] Hsiang et al., at 1362–1369.
[64] Meyer 2017.
[65] Hsiang et al., at 1362–1369.
[66] Meyer 2017 (quoting Solomon Hsiang).

2. Sea level rise will be particularly devastating to coastal communities in the Southeast.

Combined, SELC's coastal states include over 12,500 miles of tidal shoreline, accounting for 23% of the total shoreline in the contiguous U.S. (Table 1).[67] This entire area, including both developed and natural habitats, will be affected to some degree by rising seas as a result of tidal influence. In total, 200,000 to 1.3 million people in SELC's region are expected to be at risk of inundation due to sea level rise, not including those who will be barred from accessing hospitals, schools, grocery stores, and other community hubs as a result of rising water.[68] This inundated area along our shoreline includes over 94 billion dollars' worth of existing property that could be underwater as a result of sea level rise.[69]

Table 1. Tidal shoreline and general coastline in SELC's coastal states, shown in miles.[70]

	Tidal Shoreline	Coastline
VA	3,315	112
NC	3,375	301
SC	2,876	187
GA	2,344	100
AL	607	53
TOTAL	12,517	753

Sea level has been recorded at many tide gauge stations in the U.S. since the early 20th Century. In analyzing this data it is evident that sea level has already risen and is continuing to rise, and that this rate varies across SELC's region (Table 2). On average the pace of rise in our region is faster than the global average of 3 millimeters per year.[71] In Georgia and South

[67] Total tidal shoreline for contiguous US calculated as 53,677 miles. Total coastline for the contiguous US calculated as 4,993 miles. SELC's coastal states account for 15% of the total US coastline. NOAA Office for Coastal Mgmt., *Shoreline Mileage of the United States*, available at https://coast.noaa.gov/data/docs/states/shorelines.pdf (last visited Apr. 25, 2018); U.S. Census Bureau, Statistical Abstract of the United States (2011), *available at* https://www2.census.gov/library/publications/2010/compendia/statab/130ed/tables/11s0360.pdf

[68] This range incorporates two SLR projections and both current and projected populations. See Mathew E. Hauer et al., *Millions Projected to be at Risk from Sea-Level Rise in the Continental United States*, 6 NATURE CLIMATE CHANGE 691, tbl.A1.

[69] Zillow, Climate Change and Homes: Who Would Lose the Most to a Rising Tide? (2017), *available at* https://www.zillow.com/research/climate-change-underwater-homes-2-16928.

[70] NOAA 2011.

[71] 3mm represents the 30 year global average since mid-1980s. NOAA 2017.

Carolina, the sea has been rising at about 1.3 inches per decade. Tidewater Virginia has been dealing with rise averaging two inches per decade, totaling over two feet of rise in a century in some areas.[72]

Table 2. Observed sea level trends along the SELC region through 2017.[73]

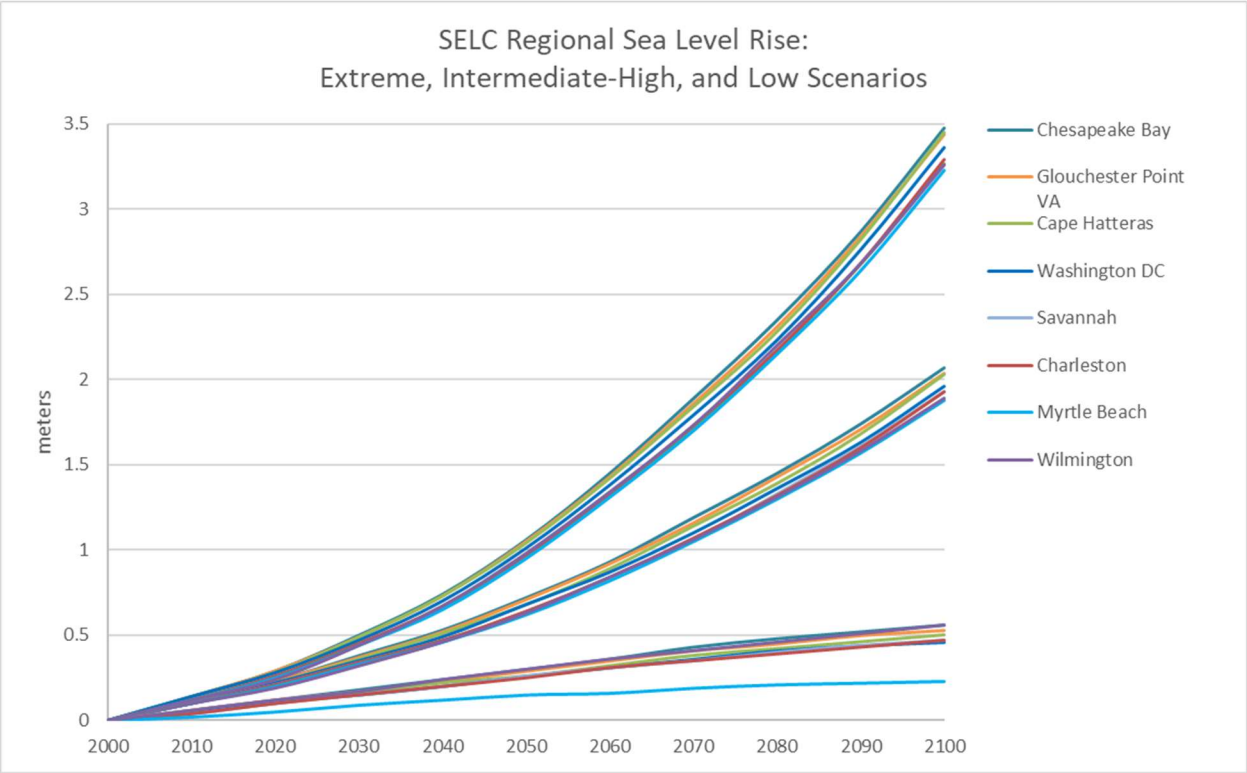
	Mean Sea Level Trend (mm/yr.)	95% Confidence Interval (mm/yr.)
Chesapeake Bay Bridge, VA	5.92	±0.72
Norfolk, VA	4.62	±0.22
Duck, NC	4.55	±0.71
Oregon Inlet, NC	4.36	±1.16
Wilmington, NC	2.30	±0.34
Myrtle Beach, SC	3.94	±0.57
Charleston, SC	3.25	±0.19
Savannah/Fort Pulaski, GA	3.24	±0.27
Fernandina Beach, FL	2.11	±0.18
Mobile, AL	3.69	±1.48

These are actual measurements, not predictions or models. And while an increase of inches over the years may not seem like much, on the low, gently sloping topography along our coastal region, what seems like a little water can go a long way. Our region is already experiencing effects associated with sea level rise, and it is expected to get worse.

To date, the most comprehensive global and regional sea level rise projections available are products of the 2017 NOAA Interagency Report.[74] This report and its projections were created to support the Fourth National Climate Assessment (NCA4).[75] The 2017 NOAA Interagency Report focuses on fine tuning global effects into regional projections, making the findings more directly relevant to assessing climate-related risks in the Southeast. Based on NOAA's projections, the coastline of SELC's region must prepare for 0.65 meters (2.1 feet) of

[72] NOAA, Tides and Currents (2018), *available* at https://tidesandcurrents.noaa.gov/sltrends.
[73] *Id.*
[74] NOAA 2017.
[75] As noted above, the regional assessments included in Volume II of *The Fourth National Climate Assessment* are scheduled to be finalized in late 2018. *See* U.S. Global Change Res. Program, *About NCA4 Vol. II*, https://www.globalchange.gov/content/nca4-planning (last visited Apr. 25, 2018). A draft is currently available but not citable.

relative sea level rise by 2050, or two meters (6.5 feet) by 2100 under the widely-supported Intermediate-High scenario.[76]



It is important to recognize that these projections do not account for water added during a storm event, and rather only indicate the probable level of high tide in a certain decade. The volume of water from rain or storm surge, in addition to increased sea level, will drastically change the shoreline along our coast. By the end of the century under the Intermediate-High scenario, even a mid-intensity storm with a 5-year recurrence interval, or a 20% chance of occurring each year, along the Southeast coast will increase water level an average of 0.6 meters, or two feet.[77] Without decreased emissions, it is possible for this 5 year storm event to become the 0.2 year event by the 2030s from the coast of Georgia and through the Carolinas and Virginia.[78] This means that the magnitude of storm that used to have a 20% chance of occurring will then be 25 times more likely to occur in a year. This more extreme

[76] NOAA 2017. This does not mean that everything below 2 meters in elevation will be submerged by 2100, as the land response will be dynamic due to accretion and ecosystem adaptation. *See* E.E Lentz et al., *Evaluation of Dynamic Coastal Response to Sea Level Rise Modifies Inundation Likelihood,* 6 NATURE CLIMATE CHANGE 696 (2016).
[77] Based on 1991–2009 data. NOAA 2017.
[78] *Id.*

precipitation in addition to sea level rise will exacerbate flooding hazards throughout our region.

Sea level rise is already making sunny day flooding a reality in many Southeastern cities.[79] Prior to the 1990s, most communities up and down the East coast saw no more than 5 days of tidal flooding per year.[80] As sea level increases, the tide level naturally rises closer to the threshold at which water moves into the streets and cities begin to flood more often. Today the Southeastern coast faces an increased magnitude of tidal flooding, as seen by the 2016 records of 50 days of flooding in Charleston, SC and 38 days of flooding in Savannah, GA.[81] Looking forward, even under low emission scenarios, cities including Charleston, SC and Norfolk, VA may experience over 180 days of tidal flooding a year by 2045, equivalent to a flooding event every other day.[82] Some areas along the Chesapeake Bay will experience over 240 events per year by this time due to their exceptionally low topography and rate of land subsidence, completely interrupting day-to-day operations. A recent report found that 40 percent of all East and Gulf Coast oceanfront communities will be chronically inundated by 2100 under a moderate sea level rise scenario, which aligns with the observed trend of sea level so far.[83]

Conclusion

In summary, climate change and the health and economic impacts it will cause pose a much greater risk of irrevocably altering our Southeastern communities than the reasonable carbon emission reduction goals in the Clean Power Plan. The "broader policy concerns" cited by EPA, particularly with regard to electricity regulation, do not support the Repeal Proposal as

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[79] Tidal flooding is interchangeably referred to as coastal, nuisance, chronic, recurrent, high tide, or sunny-day flooding. All of these titles describe the flooding that occurs when the tide gauge in an area tops the predetermined height at which parts of the city flood. This abnormally high water can be caused by a rain event, storm surge, tides alone, or a combination. King tides, which occur due to increased pull from full or super-moons, contribute to these numbers. *See* W.V. Sweet, *2016 State of US High Tide Flooding and a 2017 Outlook*, NOAA Ctr. Operational Oceanographic Products & Servs., *available at* https://www.ncdc.noaa.gov/monitoring-content/sotc/national/2017/may/2016_StateofHighTideFlooding.pdf.

[80] W.V. Sweet et al., *Patterns and Projections of High Tide Flooding Along the U.S. Coastline Using a Common Impact Threshold*, NOAA Technical Report CO-OPS 086 (2018), *available at* https://tidesandcurrents.noaa.gov/publications/techrpt86_PaP_of_HTFlooding.pdf.

[81] Sweet et al. 2016.

[82] Sweet et al. 2018; Union of Concerned Scientists, National Landmarks at Risk (2014), *available at* https://www.ucsusa.org/global_warming/science_and_impacts/impacts/national-landmarks-at-risk-from-climate-change.html#.WuCfq1WnHAU.

[83] Union of Concerned Scientists, *When Rising Seas Hit Home* (2017), *available at* https://www.ucsusa.org/sites/default/files/attach/2017/07/when-rising-seas-hit-home-full-report.pdf.

it relates to the Southeast. To prevent climate change from transforming the economy, the environment, and our lives, EPA should abandon the Repeal Proposal, resolve the litigation pending in the D.C. Circuit, and work urgently to implement and strengthen the Clean Power Plan.

Respectfully,

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About Our Organizations

The Southern Environmental Law Center (SELC) is a non-profit, regional environmental organization dedicated to the protection of natural resources throughout the Southeast. SELC works extensively on issues concerning energy resources and their impact on the people, culture, environment and economy in six Southeastern states—Tennessee, Virginia, North Carolina, South Carolina, Georgia and Alabama.

Tennessee Clean Water Network empowers Tennesseans to exercise their right to clean water and healthy communities by fostering civic engagement, building partnerships and advancing water policy for a sustainable future.

Coosa River Basin Initiative represents over 5000 members in Georgia and Alabama and has a mission to protect, preserve, and restore one of North America's most biologically diverse river systems - the upper Coosa River basin.

Tennessee Interfaith Power & Light's mission is to spiritually respond to the challenges of the climate crisis through upholding the sacredness of all life, protecting vulnerable communities, and caring for the Earth. We manifest our spiritual values by reducing our carbon footprint within our daily lives, releasing the spiritual power of our faith communities, and advocating for transformative climate protection and justice policies.

One Hundred Miles is a coastal advocacy organization dedicated to protecting, preserving and enhancing the 100-mile Georgia coast.

Tennessee Citizens for Wilderness Planning is a 51 year-old environmental advocacy organization with members across Tennessee. TCWP has a special interest in clean air, pure drinking water and adequate habitat for all creatures.

The **Altamaha Riverkeeper** is dedicated to the protection, defense and restoration of Georgia's Altamaha River and its tributaries, the Ocmulgee, the Oconee and the Ohoopee, and three major lakes, Sinclair, Oconee and Jackson, within the Altamaha Watershed. The Riverkeeper works to fulfill the Clean Water Act's goal of fishable, swimmable, and drinkable waters for the communities and recreational users within this important ecological region. Altamaha Riverkeeper has more than 1,500 members, from Atlanta and Athens to the Golden Isles, and several thousand followers who support its work.

Upstate Forever is a conservation organization that works to protect the critical lands, waters, and unique character of the ten counties that make up Upstate South Carolina.

Save our Saluda is a nonprofit organization that works to safeguard water resources of the Saluda watershed in South Carolina through environmental awareness and citizen action that advocates for clean and sustainable river flows, riparian protection, and public access to our waters.

The **Tennessee Chapter Sierra Club** has more than 105,000 members and supporters in every county across the state, with the resources to empower people and to influence public policy through community activism, public education, lobbying, and litigation. With the support of our grassroots volunteers and organizers we work to protect our air, water and ecosystems and promote sustainable solutions that ensure safe and healthy communities for today and in the future.

Founded in 1985, the **Southern Alliance for Clean Energy** is a nonprofit organization that promotes responsible energy choices that work to address the impacts of global climate change and ensure clean, safe, and healthy communities throughout the Southeast.

Environment Georgia protects the places we love, advancing the environmental values we share, and winning real results for our environment. Environment Georgia is a citizen-based environmental advocacy project of Environment America. We believe there's something special about Georgia — something worth protecting and preserving for future generations.

Alabama Rivers Alliance is a statewide network of more than 50 local groups working to protect and restore all of Alabama's water resources through building partnerships, empowering citizens, and advocating for sound water policy and its enforcement.

Gasp is an Alabama-based health advocacy organization working to reduce air pollution through education and advocacy.

The **Coastal Conservation League** works to protect the natural landscapes, abundant wildlife, clean water, and quality of life in South Carolina.

For the last 40 years, **Southface** has been a leader in the research, design, and implementation of a regenerative economy for the Southeast. We are a group of change makers with a laser-focus on generating the outcomes that lead to *vibrant, healthy communities for all*. It is this singular vision, this dedication to creating the policies, technologies, buildings, and

communities to improve human lives that propels us forward. It is the underpinning of the programs and service we craft, the data we track and the outcomes we share with our peers, our community, and our leaders.

For the last 85 years, the **South Carolina Wildlife Federation** (SCWF) has served as the voice for outdoor enthusiasts of every stripe. Representing hunter and birdwatcher, teacher and backpacker, boater and farmer, gardener and angler, SCWF builds partnerships to ensure everyone can enjoy South Carolina's natural heritage and recreation opportunities for generations to come.