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Via Electronic Mail (kcowdery@psc.state.fl.us)

Kathryn Cowdery
Office of the General Counsel
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Comments on U.S. Environmental Protection Agency Carbon Rules

Dear Ms. Cowdery:

Sierra Club and the Natural Resources Defense Council thank the Commission for the opportunity to comment on the U.S. Environmental Protection Agency’s proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources—Electric Utility Generating Units (“Clean Power Plan”). Our comments focus on the achievability of meeting EPA’s proposed Florida-specific emission targets in the Clean Power Plan (“Florida’s targets”). As discussed below, Florida’s targets are readily achievable; moreover, they present a pivotal opportunity to diversify Florida’s electric system through clean, safe energy efficiency and renewable generation. These are “no regrets” resource investments that will accrue to Floridian businesses and families—not out-of-state fossil fuel interests—regardless of the form that Florida’s targets ultimately takes.

The following comments are divided into six sections starting with Florida’s acute exposure to costly climate change impacts, including direct impacts to the power sector. The remaining sections discuss the *favorable* cost implications of planning and early action by the Commission to get on track to Florida’s targets. Specifically, Section II recaps the Clean Power Plan and its implications for Florida. Section III shows that expanding energy efficiency will put Florida on track to meet its targets while growing a stronger, more resilient local economy. Section IV shows that expanding renewable generation is also a no regrets investment, by far better than building new nuclear or gas-burning power plants. Finally, Section V sets out specific recommendations for the Commission to plan and develop the regulatory support to put Florida on track to achieve its Clean Power Plan targets and to take full advantage of the flexibility that the Plan gives Florida to select cost-effective compliance options.

I. Climate Change Threatens the Health and Welfare of Floridians.

Floridians face climate change impacts that have already cost us billions of dollars in property damage, increased healthcare costs, and lost tourism revenues. Due to climate change, sea levels and average annual temperatures are rising, and intense storms and flooding are becoming more frequent and severe.¹ Floridians are already paying dearly for these impacts because they spread disease, discourage tourism, and damage property, water supplies, and critical infrastructure on which Floridian businesses and families rely.²

Sea level rise along with stronger tropical cyclones and associated storm surges present a particularly serious threat to Florida's \$71.8 billion tourism sector—the State's biggest industry, which directly supports over a million jobs.³ With approximately 810 million beach day visits in 2012, the annual recreational value of Florida's beaches has been estimated at more than \$50 billion.⁴ But the beaches and coastal areas on which this industry relies will be severely eroded and could disappear entirely if climate impact trends continue.⁵ Since 1870, the average global sea level rose 8 inches, but in Southeast Florida, it has risen by 12 inches.⁶ Between 1963 and 2012, sea level around Key West rose 5.5 inches, and Pensacola experienced a 5-inch rise over the same time period.⁷ Rising sea levels are very likely to accelerate over the coming decades.⁸ Waters around Miami could rise a foot by 2040, resulting in impacts to \$4 billion of taxable property, and could rise yet another foot by 2060, endangering over 25,000 homes and over \$16 billion in property value.⁹ The city itself is a vital part of Florida's economy, accounting for \$22.8 billion in tourism revenue in 2013.¹⁰

¹ See U.S. EPA, Climate Impacts in the Southeast, www.epa.gov/climatechange/impacts-adaptation/southeast.html ("EPA Southeast Impacts"); Intergovernmental Panel on Climate Change, Climate Change 2014: Mitigation of Climate Change, Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, *available at* mitigation2014.org/report; U.S. Global Change Research Program, Climate Change Impacts in the United States: The Third Nat'l Climate Assessment (2014), *available at* nca2014.globalchange.gov ("Nat'l Climate Assessment"); Nat'l Research Council, America's Climate Choices (2011), *available at* www.nap.edu/catalog.php?record_id=12781.

² See Nat'l Climate Assessment 396–417 (Chapter 17).

³ Forbes Tompkins and Christina DeConcini, World Res. Inst., *Sea Level Rise and Its Impact on Miami-Dade County* 3 (2014), www.wri.org/sites/default/files/sealevelrise_miami_florida_factsheet_final.pdf ("WRI Miami-Dade Fact Sheet").

⁴ James Houston, *The economic value of beaches – a 2013 update*, SHORE AND BEACH, 81(1), 1–29; *see also* Florida Shore & Beach Preservation Ass'n, *Healthy Beaches Drive Florida's Economy*, www.fsbpa.com/EconomicFactSheet.pdf.

⁵ U.S. EPA, Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants 3-3, 3-6–3-7 (June 2014) ("RIA"), *available at* www.epa.gov/ttn/ecas/regdata/RIAs/111dproposalRIAFinal0602.pdf.

⁶ WRI Miami-Dade Fact Sheet at 1.

⁷ Union of Concerned Scientists, Infographic: Sea Level Rise and Global Warming, www.ucsusa.org/global_warming/science_and_impacts/impacts/infographic-sea-level-rise-global-warming.html.

⁸ RIA at 3-6.

⁹ Rhys Gerholdt, World Res. Inst., *Snapshots of Miami Sea Level Rise* (May 2, 2014), www.wri.org/blog/2014/05/snapshots-miami-sea-level-rise; WRI Miami-Dade Fact Sheet at 4.

¹⁰ Hannah Sampson, *Miami tourism hit record numbers in 2013*, MIAMI HERALD, Feb. 27, 2014, www.miamiherald.com/2014/02/26/3961532/miami-tourism-hit-record-numbers.html.

Miami Beach's \$400 million water pump system upgrade is another example of the cost of climate change impacts on Florida's critical infrastructure.¹¹ These upgrades are necessary following a dramatic increase in the occurrence of "sunny-day flooding"—the seeping of seawater through the limestone formation that underlies the city and up through the stormwater system and into the streets during high tide.¹² In addition to flooding of areas along the coast, higher sea levels will cause storm surges to penetrate farther inland, exacerbating flooding near canals and rivers. Saltwater intrusion associated with sea-level rise has already begun, nearly six miles inland in some areas, which could contaminate the aquifers and principal water supply of low-lying southeastern Florida, including Miami-Dade, necessitating the procurement of expensive alternative water supplies.¹³

In Florida and across the Southeast, increases in weather-related losses have been widely documented. In 2012 alone, insured losses in the U.S. totaled \$58 billion—a significant increase from the average annual loss of \$27 billion during the prior ten years.¹⁴ As hurricanes have intensified and become more frequent over the past couple of decades, many private insurers have stopped writing homeowners policies in Florida or have withdrawn from the market altogether.¹⁵ The 2004 hurricane season alone deterred Allstate from writing any new commercial insurance policies and from renewing 95,000 residential homeowner policies, about 15% of its portfolio there.¹⁶ The company stated that "climate change prompted it to cancel or not renew policies in many Gulf Coast states, with recent hurricanes wiping out all of the profits it had garnered in 75 years of selling homeowners insurance."¹⁷ Those insurers that have remained in the State offer home insurance at rates nearly double the national average.¹⁸ The recent increase in insurance rates in Florida challenges the State's reputation for low-cost living, historically a key driver in the State's growth.¹⁹

As the Commission well knows, a substantial portion of the costs of weather-related losses are borne by the energy sector. Indeed, the 2004–2005 hurricane seasons caused more than

¹¹ Christina Veiga, *Miami Beach to Spend Up to \$400 Million to Deal with Flooding Issues*, MIAMI HERALD, Feb. 12, 2014, www.miamiherald.com/2014/02/12/3931159/miami-beach-to-spend-up-to-400.html.

¹² Coral Davenport, *Miami Finds Itself Ankle-Deep in Climate Change Debate*, N.Y. TIMES, May 7, 2014, www.nytimes.com/2014/05/08/us/florida-finds-itself-in-the-eye-of-the-storm-on-climate-change.html?_r=0.

¹³ WRI Miami-Dade Fact Sheet at 3; Florida Oceans and Coastal Council, *Climate Change and Sea-Level Rise in Florida: An Update of "The Effects of Climate Change on Florida's Ocean & Coastal Resources"* 13 (2010), available at http://www.floridaoceanscouncil.org/reports/Climate_Change_and_Sea_Level_Rise.pdf.

¹⁴ See U.S. GAO, *Climate Change: Energy Infrastructure Risks and Adaptation Efforts* 3 (Jan. 2014), available at www.gao.gov/products/GAO-14-74 ("GAO Infrastructure Report").

¹⁵ Lawrence Berkeley Nat'l Lab., *Update to "Availability and Affordability of Insurance Under Climate Change: A Growing Challenge for the U.S."*, insurance.lbl.gov/availability-affordability.html.

¹⁶ Evan Mills, et al., Ceres, *Availability and Affordability of Insurance Under Climate Change: A Growing Challenge for the U.S.* 2 (Dec. 2005), evanmills.lbl.gov/pubs/pdf/ceres-insur_report.pdf.

¹⁷ See *supra* note 15; see also Marilyn Adams, *Strapped insurers flee coastal areas*, USA TODAY, Apr. 26, 2006, usatoday30.usatoday.com/money/industries/insurance/2006-04-25-hurricane-usat_x.htm.

¹⁸ Zac Anderson, *Florida Most Expensive in Nation for Home Insurance*, THE GAINESVILLE SUN, Dec. 17, 2013, available at www.gainesville.com/article/20131217/WIRE/131219645?tc=ar.

¹⁹ *Id.*

\$2 billion in damages to the facilities of Florida’s main electric utilities.²⁰ A recent study by the U.S. Government Accountability Office confirmed the growing vulnerability to the impacts of climate change of energy infrastructure across the nation.²¹ The study found that infrastructure for all stages of the energy supply chain—resource extraction and processing, fuel transportation and storage, electricity generation, and electricity transmission—was susceptible to damage by sea level rise, severe weather, and water scarcity. Much of this infrastructure was designed and built decades ago, is not equipped to withstand the effects of our changing climate, and will require expensive retrofitting or replacement to withstand the threats posed by climate change impacts.²²

Direct costs to the energy industry following Hurricanes Katrina and Rita were estimated at around \$15 billion.²³ After reporting \$1.5 billion in damages cause by those storms, Entergy conducted a study that estimated potential losses of \$350 billion by 2030 due to rising sea level along the Gulf Coast and identified \$120 billion in potential resiliency investments that could reduce climate-related risks.²⁴ Like Entergy, many of Florida’s electric generation units are located along the coastline and in low-lying areas,²⁵ leaving them particularly vulnerable to inundation, shoreline erosion, and storm surges.²⁶ Indeed, Florida Power & Light has acknowledged the vulnerabilities that its Turkey Point nuclear facility faces given its location on the Biscayne Bay coast.²⁷ In addition, because fossil fuel-burning and nuclear power plants require significant amounts of water (often of a certain temperature) to operate, water shortages and elevated water temperatures could constrain generation capacity at these plants.²⁸ Higher air temperature also will diminish electric generation unit performance by reducing operating efficiency.²⁹

Temperatures in Florida have been rising steadily since the 1970s with the last decade being the warmest on record.³⁰ EPA projects that average annual temperatures in the region will increase by 4–9°F by 2080.³¹ As temperatures continue to rise, communities will face increasing health risks even beyond the direct impacts caused by storms. These include more frequent and severe heat waves, which are particularly dangerous to the elderly, the very young, and the infirm.³² By 2030, Florida will have one of the largest populations of older Americans in the

²⁰ Florida Pub. Serv. Comm’n, Report to Legislature on Enhancing the Reliability of Florida’s Distribution and Transmission Grids During Extreme Weather 13–14 (July 2007), *available at* www.floridapsc.com/publications/pdf/electricgas/stormhardening2007.pdf.

²¹ GAO Infrastructure Report.

²² *Id.* at 10.

²³ *Id.* at 3; *see also* Nat’l Climate Assessment at 115, 127.

²⁴ GAO Infrastructure Report at 38–39.

²⁵ U.S. EIA, Flood Vulnerability Assessment Map: Energy Infrastructure with FEMA National Flood Hazard, www.eia.gov/special/floodhazard/.

²⁶ GAO Infrastructure Report at 12.

²⁷ *Id.* at 42–44

²⁸ *Id.* at 19–21.

²⁹ *Id.* at 20.

³⁰ Keith T. Ingram, et al., eds., *Climate of the Southeast United States: Variability, change, impacts, and vulnerability 22* (2013) (technical input document for Nat’l Climate Assessment).

³¹ EPA Southeast Impacts.

³² RIA 3-1-3-2.

country.³³ In addition, warmer days lead to enhanced ozone (or smog) formation, which can exacerbate respiratory illnesses, contribute to asthma attacks and hospitalizations, and heighten the risk of premature death among affected populations.³⁴

Climate change also is expected to cause increases in drought frequency and water scarcity and to exacerbate the threat of pest- and vector-borne diseases.³⁵ Florida is already seeing new, previously tropical diseases becoming endemic to the State or otherwise returning to the State after prior eradication.³⁶ For example, Florida health officials worry that recent outbreaks of dengue fever and West Nile virus are part of a growing trend of once-tropical diseases becoming more commonplace as a result of urbanization, increased travel, and climate change—warmer temperatures facilitate the spread of these diseases.³⁷ In addition to dengue and West Nile, just last month, Florida experienced its first domestically contracted cases of Chikungunya fever, which causes pounding headaches and severe joint pain lasting up to a year.³⁸ The disease, which is transmitted by the “day biting” *Aedes* mosquitoes, was confirmed in patients in Miami Dade, Palm Beach, and Pinellas Counties.³⁹ The Florida Department of Health now recommends the following preventive measures be taken: “COVER your skin with clothing and use mosquito repellent. . . . Wear shoes, socks, long pants, and long sleeves. . . . Apply mosquito repellent to bare skin and clothing. . . . Repellents with DEET, picaridin, oil of lemon eucalyptus and IR3535 are effective.”⁴⁰ Needless to say, the threat of contracting dengue and Chikungunya fevers and other tropical diseases—and recommendations to wear full-length clothing and use harsh insect repellents cannot be a boon to Florida’s tourism industry, and the economic costs from such vector-borne illnesses will only rise over time as the “tropical wet-dry” zone—the zone where the most intense vector-borne disease transmission occurs—expands in Florida as a result of climate change.⁴¹

II. GHG Regulation Under the Clean Air Act

For Florida to avoid the spiraling consequences of climate change, greenhouse gas (“GHG”) emissions must be reduced significantly. Federal regulation of GHG emissions from electric generating units (“EGUs”) is imminent now that the Supreme Court has confirmed

³³ Ingram at 49.

³⁴ RIA at 3-2-3-3, 5-39-5-40.

³⁵ Nat’l Climate Assessment 396-417 (Chapter 17); *see also* Kim Krisberg, *Vector-borne diseases growing as threats to U.S. public health: Climate change, travel linked to illness*, THE NATION’S HEALTH, Sept. 2010, at 1-27, available at thenationshealth.aphapublications.org/content/40/7/1.2.full.

³⁶ Ingram at 51-52.

³⁷ *Id.* at 51; *see also* Michaeleen Doucleff, *Dengue Fever No Longer Just A Visitor To Florida Keys*, NPR (Mar. 13, 2014), www.npr.org/blogs/health/2013/03/12/174142169/dengue-fever-no-longer-just-a-visitor-to-florida-keys.

³⁸ Press Release, Florida Dep’t of Health, Florida Department of Health Confirms First Locally Acquired cases of Chikungunya Fever (July 17, 2014), newsroom.doh.state.fl.us/wp-content/uploads/newsroom/2014/05/071714-Locally-Acquired-Chikungunya.pdf; *see also* Donald G. McNeil Jr., *2 in Florida Said to Catch Fever Found in Tropics*, N.Y. TIMES, July 17, 2014, www.nytimes.com/2014/07/18/us/2-in-florida-said-to-catch-fever-found-in-tropics.html.

³⁹ *Id.*; *Rays pitcher 3rd case of chikungunya in Pinnellas*, 10 NEWS, July 29, 2014, www.wtsp.com/story/news/health/2014/07/28/3rd-case-of-chikungunya-confirmed-in-pinellas/13287097/.

⁴⁰ Florida Dep’t of Health, Mosquito-borne Diseases, Prevention, <http://www.floridahealth.gov/diseases-and-conditions/mosquito-borne-diseases/prevention.html>.

⁴¹ Ingram at 51.

EPA’s regulatory authority under the Clean Air Act,⁴² and EPA has proposed the Clean Power Plan to achieve emissions reductions from existing EGUs, as well as rules to regulate carbon from new,⁴³ modified, and reconstructed EGUs.⁴⁴

Section 111(d) of the Clean Air Act (“CAA” or “the Act”) requires EPA to issue regulations that establish a state implementation process similar to the existing processes for reducing criteria pollutants under Section 110 of the Act.⁴⁵ In particular, EPA’s section 111(d) regulation establishes a three-step process for reducing existing sources of carbon dioxide in states, including Florida.⁴⁶ First, EPA must issue an emission guideline, including: (1) a description of systems of emission reduction that, in EPA’s judgment, have been adequately demonstrated, (2) information on the degree of reduction achievable, as well as the costs and environmental effects involved in each of those systems; and (3) an emissions guideline that reflects the application of the best system of emission reduction (“BSER”) that has been adequately demonstrated for existing sources, and the time within which compliance with emission standards of equivalent stringency can be achieved.⁴⁷ Next, Florida must submit to EPA a plan establishing standards of performance that incorporate, or that set more stringent standards than, EPA’s emission guideline.⁴⁸ Florida’s plan must describe how Florida will implement the standard, and must include compliance schedules.⁴⁹ Lastly, EPA must approve Florida’s plan or issue a federal implementation plan if Florida fails to submit a satisfactory plan or fails to enforce the provisions of an approved plan.⁵⁰

In developing its proposed Guidelines for GHG emissions from existing EGUs, EPA determined BSER by considering four options for emissions reductions. These four proposed “building blocks” are: (1) the reduction in the carbon intensity of covered EGUs through improvements in those units heat rates; (2) the substitution of coal-fired generation with gas generation by increasing the annual utilization rate of existing natural gas combined cycle (“NGCC”) plants and NGCCs currently under construction; (3) the substitution of generation from affected EGUs with renewable and nuclear power generation; and (4) the reduction of emissions from affected EGUs through demand-side energy efficiency measures. Based on assumptions of achievability underlying the building blocks and on differences among states’ current energy mixes, EPA calculated individual emission rate goals for each state—interim goals to be achieved between 2020 and 2029 and final goals to be achieved by 2030—which, collectively, would result in a 30 percent reduction in power sector carbon emissions from 2005 levels by 2030.

⁴² *Massachusetts v. Envtl. Prot. Agency*, 549 U.S. 497 (2007); *American Electric Power v. Connecticut*, 131 S.Ct. 2527 (2001).

⁴³ U.S. EPA, Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 1430 (Jan. 8, 2014).

⁴⁴ U.S. EPA, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830 (June 18, 2014).

⁴⁵ 42 U.S.C. § 7411 (d)(1).

⁴⁶ 40 C.F.R. §§ 60.20–60.29.

⁴⁷ 40 C.F.R. § 60.22(b).

⁴⁸ 40 C.F.R. §§ 60.23(a)(1); 60.24(c).

⁴⁹ 40 C.F.R. § 60.23(e).

⁵⁰ 40 C.F.R. § 60.27(b)–(d).

The proposed state goals are expressed as average emission rates for affected EGUs in terms of lb CO₂/MWh. States may translate the rate-based goal into a mass-based goal, or translate the individual state's rate-based goal into a multi-state goal. Consistent with the Commission's December 13, 2013 comments to EPA, the Clean Power Plan grants Florida the flexibility to design and adopt its own implementation plan for complying with federal guidelines.⁵¹ While the emissions reductions goals outlined in the Plan are based on EPA's determination of the best system of emission reduction that has been adequately demonstrated at a reasonable cost, the Plan gives Florida the discretion to select the compliance options to meet the Florida-specific goals. Accordingly, Florida can determine for itself which emissions reductions options are feasible and cost-effective.

The emission reduction measures included in Florida's implementation plans must be enforceable and must be projected to achieve emissions performance equivalent to or better than EPA's goal on the required timeline. Florida's emissions reductions must be quantifiable and verifiable, and Florida's plan must include a process for reporting plan implementation, progress toward achieving the state goals, and implementation of corrective actions, if necessary.

In addition to the flexibility afforded states in designing implementation plans, EPA has proposed to allow states, when measuring compliance, to take into account certain emissions reductions measures that are put into place after the date of EPA's proposal and that generate emissions reductions during the proposed compliance period. States can take advantage of this added flexibility by ramping up energy efficiency, for example. Florida should have no problem crafting an implementation plan under which it can achieve cost-effective compliance, drive job creation, and keep Floridians' hard-earned dollars in the local economy instead of going out of state for risky fuel purchases.

III. Florida Can Cost-Effectively Comply with the Clean Power Plan by Implementing Energy Efficiency Measures.

EPA has proposed a carbon emissions rate limit or goal for Florida of 740 lbs/MWh to be achieved by 2030.⁵² This goal represents a 40 percent emission rate reduction from a 2012 initial emissions rate of 1,238 lbs/MWh. As explained above, the Clean Power Plan affords states great flexibility in choosing from a range of possible compliance options. Maximizing demand-side energy efficiency provides the most cost-effective option for meeting the Clean Power Plan goals.

For all states, including Florida, EPA has concluded that implementation of energy efficiency measures is achievable at reasonable costs and that Florida can achieve incremental energy savings of 1.5 percent of annual retail sales by 2024.⁵³ Energy efficiency is recognized as the most widely available and the lowest-cost options for reducing carbon emissions,⁵⁴ and can

⁵¹ Letter, Ronald A. Brise, Chairman, Florida Public Service Commission, to Janet McCabe, U.S. EPA (Dec. 13, 2013).

⁵² 79 Fed. Reg. at 34,895.

⁵³ *Id.* at 34,874.

⁵⁴ Maggie Molina, Am. Council for an Energy-Efficient Economy, *The Best Value for America's Dollar: A National Review of the Cost of Utility Energy Efficiency Programs* (Mar. 2014), *available at* aceee.org/research-report/u1402; Sara Hayes and Garrett Herndon, Am. Council for an Energy-Efficient Economy, *Trailblazing Without the Smog: Incorporating Energy Efficiency into Greenhouse Gas Limits for Existing Power Plants* (Oct. 2013), *available at* www.aceee.org/research-report/e13i.

be described as a “no regrets” option, because, unlike other options for reducing such emissions, it reduces electricity system costs and results in lower bills for electricity customers. For example, EPA’s Regulatory Impact Analysis for the Clean Power Plan cites two studies finding that demand-side efficiency improvements can be realized at less cost than the savings from avoided power generation.⁵⁵ Even EPA’s low estimates of energy efficiency costs have been criticized as too high.⁵⁶ On average, energy efficiency programs now cost 2.8 cents per kilowatt hour (kWh)⁵⁷—one-half to one-third as much as supply-side alternatives⁵⁸—and their costs are continuing to fall. In addition to representing the cheapest option for GHG emissions reduction, energy efficiency programs stimulate local economic development by creating new jobs and spurring technological innovation.⁵⁹

In recent years, national investments in utility energy efficiency programs have grown at a rapid pace—increasing from \$1.6 billion in 2006 to \$5.9 billion in 2011⁶⁰—and are projected to continue to increase to between \$8.1 billion and \$12.2 billion over the next decade, with the most significant increases occurring in regions with lower levels of historical program spending, including the South.⁶¹ Despite these trends, energy efficiency levels in Florida have lagged behind the national average. In 2012, Florida’s incremental energy savings amounted to 0.27 percent of annual retail sales—less than half the 0.58 percent U.S. average.⁶² Florida Power & Light and Duke Electric Florida reported 0.21 percent⁶³ and 0.23 percent⁶⁴ energy savings, respectively, in 2013, and have proposed future savings levels of far below even those low figures—in Florida Power & Light’s case, *one hundred times* lower than what the company achieved in 2013.⁶⁵ Gulf Power, on the other hand, increased its energy savings from 0.07

⁵⁵ RIA at 2-14.

⁵⁶ See Molina at 34–37; Megan A. Billingsley, et al., Lawrence Berkeley Nat’l Lab., The Program Administrator Cost of Saved Energy for Utility Customer-Funded Energy Efficiency Programs 52–57 (Mar. 2014), *available at* <http://emp.lbl.gov/sites/all/files/lbnl-6595e.pdf>.

⁵⁷ Molina at 39.

⁵⁸ *Id.* at 34, 39.

⁵⁹ U.S. EPA, Technical Support Document (TSD) for Carbon Pollution Guidelines for Existing Power Plants: Emission Guidelines for Greenhouse Gas Emissions from Existing Stationary Sources: Electric Utility Generating Units, GHG Abatement Measures 5-7–5-9, Docket ID No. EPA-HQ-OAR-2013-0602 (June 2014) (“Abatement TSD”).

⁶⁰ Abatement TSD at 5-2, 5-14–5-15, 5-19.

⁶¹ *Id.*

⁶² *Id.* at 5-17.

⁶³ Florida Power & Light Co., 2013 Demand-Side Management Annual Report, Undocketed (Feb. 28, 2014), *available at* www.psc.state.fl.us/utilities/electricgas/ARdemandside/2013/FPL.pdf; Florida Power & Light Co., Ten-Year Power Plant Site Plan 2014–2023, Schedules 2, 3, Document No. 01462-14 (Apr. 1, 2014), *available at* www.psc.state.fl.us/library/FILINGS/14/01462-14/01462-14.pdf.

⁶⁴ Duke Energy Florida Inc., Summary of Demand-Side Management Annual Report (2013), Undocketed (Feb. 28, 2014), *available at* www.psc.state.fl.us/utilities/electricgas/ARdemandside/2013/Duke.pdf; Duke Energy Florida, 2014 Ten-Year Site Plan, Schedules 2, 3, Document No. 01463-14 (Apr. 1, 2014), *available at* www.floridapsc.com/library/FILINGS/14/01463-14/01463-14.pdf.

⁶⁵ Florida Light & Power Co., Petition for Approval of Numeric Conservation Goals 6 (Apr. 2, 2014), *available at* www.psc.state.fl.us/library/FILINGS/14/01473-14/01473-14.pdf; Direct Test. of Thomas R. Koch, Ex. TRK-7, Document No. 01475-14 (Apr. 2, 2014), *available at* www.psc.state.fl.us/library/FILINGS/14/01475-14/01475-14.pdf. Duke Electric Florida proposes to save 0.11 percent of annual retail sales in 2015. See Duke Energy Florida Inc., Petition for Approval of Numeric Conservation Goals, Ex. HG-1, Document No. 01497-14 (Apr. 2, 2014),

percent in 2010 to 0.9 percent in 2013.⁶⁶ This increase demonstrates that energy efficiency savings are available and within the utilities' power to achieve. However, absent a push from the Commission, utilities lack the necessary incentive to pursue such gains. Indeed, even Gulf Power, which appeared to be on a trajectory toward praiseworthy energy savings, has reversed course and now proposes to achieve only 0.03 percent energy savings in 2015.⁶⁷

As discussed in testimony presented by Sierra Club to the Commission in the current Florida Energy Efficiency and Conservation Act goal-setting dockets, nos. 130199–130203, Florida's utilities can and should achieve much higher levels of energy savings going forward.⁶⁸ Given the comparatively low levels of energy efficiency currently being realized in Florida, the potential to ramp up energy savings across the State is enormous.⁶⁹ Much higher energy savings goals can be achieved rapidly and profitably in Florida with the appropriate regulatory support from the Commission.

Recent savings and new targets in other states demonstrate the increasing achievability of energy efficiency. In 2012, eleven states achieved energy savings of over 1 percent of retail sales.⁷⁰ Arkansas, which reported only 0.11 percent energy savings in 2012,⁷¹ could increase its savings by nearly ten times if it meets the 0.9 percent goal for 2015 recently set by the Arkansas Public Service Commission.⁷² In ordering the new efficiency target, the Arkansas Commission cited reliance on "evidence of growing and more cost-effective achievement."⁷³ In neighboring Georgia, investor-owned Georgia Power ramped up its incremental energy savings from 0.12 percent retail sales in 2011 to 0.25 percent in 2012 to 0.4 percent in 2013, and plans for cumulative savings of 2,822 GWh by 2020.⁷⁴

If Florida were to implement EPA's assumed annual 1.5 percent increase in energy savings from efficiency measures, the State could achieve cumulative savings of almost 10 percent of retail sales by 2030, representing 15 percent of the emissions reductions needed to achieve EPA's overall 2030 emission reduction goal for Florida. Given the low costs of realizing

available at <http://www.psc.state.fl.us/library/FILINGS/14/01497-14/01497-14.pdf>. This is far lower than the savings achieved by Duke Energy's demand-side management programs in North Carolina and Ohio—0.7 and 1.1 percent, respectively, for 2011 and 2010. *See* U.S. Energy Information Admin., Electric power sales, revenue, and energy efficiency Form EIA-861 detailed data files, <http://www.eia.gov/electricity/data/eia861/>.

⁶⁶ Gulf Power Co., 2013 Demand-Side Management Progress Plan Report, Undocketed (Feb. 28, 2014), *available at* www.psc.state.fl.us/utilities/electricgas/ARdemandside/2013/Gulf.pdf; Gulf Power Co., Revisions to 2013 Demand-Side Management Progress Plan, *available at* www.psc.state.fl.us/utilities/electricgas/ARdemandside/2013/Gulf_revisions.pdf; Gulf Power Co., Ten Year Site Plan 2014–2023, Schedules 2, 3, Document No. 01433-14 (Apr. 1, 2014), *available at* www.psc.state.fl.us/library/FILINGS/14/01433-14/01433-14.pdf.

⁶⁷ Gulf Power Co., Petition for Approval of Numeric Conservation Goals, Ex. JNF-1.

⁶⁸ Direct Test. of Tim Woolf, Document No. 02380-14 (May 20, 2014), *available at* www.psc.state.fl.us/library/FILINGS/14/02380-14/02380-14.pdf.

⁶⁹ Abatement TSD at 5-19.

⁷⁰ *Id.* at 5-17–5-19.

⁷¹ *Id.*

⁷² *In the Matter of the Continuation, Expansion, and Enhancement of Public Utility Energy Efficiency Programs in Arkansas*, Arkansas Public Service Comm'n Docket No. 13-002-U, Order No. 7 at 24 (Sept. 9, 2013).

⁷³ *Id.*

⁷⁴ Georgia Power Co., Certified Demand-Side Management Programs, Fourth Quarter 2013 Status Report 2, *available at* <http://www.psc.state.ga.us/factsv2/Document.aspx?documentNumber=151946>.

energy efficiency gains and the net benefits when compared to other emissions reductions options, Florida should opt for a higher level of energy savings as part of its implementation plan. As discussed above, the Clean Power Plan gives states the flexibility to decide for themselves how to meet EPA's goals. Florida can achieve cost-effective compliance with EPA's goal if it ramps up its energy efficiency investments more quickly and achieves energy efficiency savings of 2 percent per year by 2024. Achieving that level of energy savings will allow Florida to reduce the need for fossil fuel generation, will eliminate the emission of millions of metric tons of carbon dioxide emissions, and will result in greater benefits for the State than complying with the Clean Power Plan goal by implementing EPA's building block assumptions would.

It is critical that Florida start ramping up energy efficiency now in order to maximize its energy savings and facilitate compliance with the targets in 2020. In the proposed rule, EPA explains that actions taken after the date of the proposal that achieve emissions reductions during the compliance period can be part of a state plan.⁷⁵ Investments in energy efficiency made between now and 2020 will continue to deliver savings in 2020 and beyond. Starting in 2020, Florida will be able to count the continued savings from the energy efficiency measures put in place between now and 2020. Thus energy efficiency investments made today will give Florida a valuable head start on compliance with the targets at the same time save customers money and reduce emissions. In addition to allowing the State to meet Clean Power Plan targets in a cost-effective way, an increase in energy efficiency measures could create 10,000 new jobs for Floridians over the next five years alone.⁷⁶

IV. Expanding Electricity Generation from Clean Renewable Sources Provides a Low-Cost Option for Achieving Emissions Reductions Necessary to Meet EPA's Proposed Goal

Energy efficiency is the lowest-cost path for Florida to meet its carbon reduction target, however, increasing electricity generation from renewable energy sources is another cost-effective and achievable compliance strategy that should be pursued in combination with energy efficiency programs. The Sunshine State has some of the highest solar power potential in the country which can be used to meet EPA's proposed goal while keeping costs down for ratepayers, as renewable energy costs continue to decline dramatically. The Commission should take this opportunity to consider early action to establish regulatory support and infrastructure to enable rapid expansion of renewable energy in Florida.

EPA's third building block in determining BSER is the substitution of generation from affected EGUs with low- or zero-carbon generation. In calculating state targets, EPA proposed renewable energy goals that it believes are reasonable given regional variations and existing state renewable portfolio standards. To estimate achievable CO₂ emission reductions from affected EGUs from increases in renewable generation, EPA developed a "best practices" scenario consisting of increasing annual levels of renewable energy generation based on the application of an annual renewable energy growth factor to states' historical renewable energy generation, and subject to a maximum renewable energy generation target. For Florida, EPA calculated a target of 10 percent renewable energy generation by 2030, or 22,109,615 megawatt hours (MWh),

⁷⁵ 79 Fed. Reg. at 34,952.

⁷⁶ Natural Resources Defense Council, Carbon Pollution Standards Fact Sheet: Florida (May 2014), <http://www.nrdc.org/air/pollution-standards/files/cps-state-benefits-FL.pdf>.

based on generation by and standards of other Southeast states. This building block could lower Florida's emission rate by a 90 lbs/MWh increment.

In 2012, Florida produced a total of 4,523,798 MWh of renewable energy. This is a relatively small percentage of in-state generation (2.2 percent), but is equal to 20.5 percent of EPA's calculated target for 2029, meaning that Florida is already on its way to achieving the 10 percent target. Florida currently has plans to bring on board another 966 megawatts (MW) of renewable energy, including 359 MW of utility solar.⁷⁷ While this is a step in the right direction, it represents only a fraction of what Florida is technically capable of achieving.

Florida has 85 percent of the maximum photovoltaic (PV) resource of any location in the U.S. (7.2 kWh/day out of a maximum of 8.5 kWh/day), meaning the State follows closely behind the desert Southwest in terms of solar potential.⁷⁸ Florida's technical potential for renewable generation greatly exceeds the State's 2012 total generation, as Florida's utility scale solar potential alone is nearly 50 times greater than current generation in the State.⁷⁹ A study by the National Renewable Energy Lab demonstrated that Florida has the potential to generate 53,364,156 MWh from renewable energy by 2030.⁸⁰ Similarly, the 2008 Navigant Consulting study prepared for the Commission and the Governor's Office found that Florida could generate up to 52,700,000 MWh of renewable energy by 2020.⁸¹ Florida has the technical potential to generate up to 5,274,479,000 MWh from solar alone.⁸²

Rapid growth in the deployment of solar and wind energy technologies is pushing down electricity generation costs for renewables, and further cost reductions are expected through 2020.⁸³ Cost curves for solar and other renewable energy technologies have fallen sharply in recent years and are projected to continue dropping, making renewable energy an increasingly affordable option.⁸⁴ Since 2008, installed solar PV capacity in the U.S. has increased by over 15 times and prices for PV modules have fallen 80 percent.⁸⁵ In 2013, 4.8 GW of solar PV capacity was installed in the U.S., bringing total solar capacity to 12,000 MW.⁸⁶ The average price for a

⁷⁷ Florida PSC, 2013 Ten-Year Site Plan Report 2, 24, *available at* <http://www.psc.state.fl.us/publications/pdf/electricgas/TYSP2013.pdf> ("2013 TYSP").

⁷⁸ Florida Solar Energy Center, "Does the 'Sunshine' State have sufficient solar resource to support solar energy applications?" (March 26, 2007), http://www.fsec.ucf.edu/en/media/enews/2007/2007-04_Sunshine_state.htm.

⁷⁹ National Renewable Energy Lab (Lopez, A. et al. (2012). "U.S. Renewable Energy Technical Potentials: A GIS-Based Analysis." NREL/TP-6A20-51946. Golden, CO: National Renewable Energy Laboratory.).

⁸⁰ National Renewable Energy Lab, *Renewable Electricity Futures Study*, http://www.nrel.gov/analysis/re_futures/ (2050 outputs of least cost economic optimization for the US to reach 80% RE (80% RE-IT scenario) by 2050).

⁸¹ Navigant Consulting, *Florida Renewable Energy Potential Assessment* 233 (Dec. 30, 2008) ("Navigant RE Assessment").

⁸² Nat'l Renewable Energy Lab. (Lopez, A. et al. (2012). "U.S. Renewable Energy Technical Potentials: A GIS-Based Analysis." NREL/TP-6A20-51946. Golden, CO: National Renewable Energy Laboratory.).

⁸³ *Id.* at 4.

⁸⁴ *See e.g.*, International Renewable Energy Agency ("IRENA"), *Renewable Power Generation Costs in 2012: An Overview* (2013) at 4.

⁸⁵ Ceres at 8; Michael Liebreich, Bloomberg New Energy Finance, "Bloomberg New Energy Finance Summit," (Apr. 23, 2013), at 37. <http://about.bnef.com/summit/content/uploads/sites/3/2013/12/2013-04-23-BNEF-Summit-2013-keynote-presentation-Michael-Liebreich-BNEF-Chief-Executive.pdf>; U.S. Dept. of Energy, 2012 Renewable Energy Data Book 63, DOE/GO-102013-4291 (Oct. 2013).

⁸⁶ GTM Research and the Solar Energy Industries Association (SEIA), "SEIA Solar Market Insight Report 2013: Year in Review", 2014, <http://www.seia.org/research-resources/solar-market-insight-report-2013-year-review>.

utility-scale PV project in the U.S. fell from \$0.21/kilowatt hour (kWh) in 2010 to \$0.11/kWh by the end of 2013 and weighted average PV system prices fell 15 percent in 2013 to a new low of \$0.25/kWh.⁸⁷

Figure 1: Falling Prices for Utility-Scale Solar PV Projects⁸⁸



These price decreases have led to recent expansion of solar generation. For example, cumulative solar capacity in Georgia increased by nearly eight-fold in just the past three years, and the cost of solar power in the state has dropped by more than half.⁸⁹ Georgia plans to bring 525 MW of new distributed generation and utility-scale solar by 2016, bringing the state up to a total of 875 MW in the past three years.⁹⁰ In approving these new solar plans, Georgia commissioners were guaranteed that the new power would not put upward pressure on rates and determined that the move was a means of hedging against future natural gas price volatility.⁹¹ By 2016, Georgia will have almost double the solar capacity (890 MW)⁹² that the Florida utilities plan to add 9 years from now (537 MW by 2023).⁹³

Prices for solar PV in Florida have mirrored national trends and also have fallen significantly in recent years, making solar PV increasingly competitive with conventional energy sources and an increasingly smart investment for ratepayers. Utility-scale PV prices in the Southeast dropped to a capacity-weighted average price of \$3.9/W_{AC} in 2012, compared to \$3.7/W_{AC} in the West.⁹⁴ Residential and commercial solar PV costs reported by Duke and

⁸⁷ U.S. Dep't of Energy, "U.S. Utility-Scale Solar 60 Percent Towards Cost-Competition Goal" (Feb. 23, 2014), <http://www.energy.gov/articles/us-utility-scale-solar-60-percent-towards-cost-competition-goal>.

⁸⁸ U.S. Dep't of Energy, "Progress Report: Advancing Solar Energy Across America" (Feb. 12, 2014), <http://www.energy.gov/articles/progress-report-advancing-solar-energy-across-america>.

⁸⁹ See Christine Hall, "State nears goal of 1 gigawatt in solar energy," *Atlantic Business Chronicle* (July 4–10, 2014).

⁹⁰ *Id.* Georgia Public Service Commission "PSC Approves Agreement to Resolve Georgia Power 2013 Integrated Resource Plan and Expands Use of Solar Energy," (July 11, 2013), <http://www.psc.state.ga.us/GetNewsRecordAttachment.aspx?ID=250>.

⁹¹ *Id.*

⁹² See, e.g., Schwartz, E&E, "Solar demand outstripping market supply in Ga., business leader says" (May 27, 2014).

⁹³ 2013 TYSP at 24.

⁹⁴ Mark Bolinger and Samantha Weaver, "Utility-Scale Solar 2012: An Empirical Analysis of Project Cost, Performance, and Pricing Trends in the United States." Lawrence Berkeley National Laboratory (October 2013), at 7.

Florida Power & Light show a downward trend, falling an average of $\$1.43/W_{DC}$ between 2011 and 2013, as shown in Figure 2 below. Florida also has the lowest reported pricing from state and utility incentive programs on a capacity-weighted average basis at $\$3.28/W_{DC}$.⁹⁵ More recently, national predictions show prices dropping further still, between $\$1.32$ – $\$2.10/W_{DC}$ by 2010 for commercial systems and $\$1.58$ – $\$2.41/W_{DC}$ for residential systems.⁹⁶

Figure 2: Florida Solar PV Costs ($\$/W_{DC}$)

	Duke ⁹⁷		FPL ⁹⁸
	Residential	Commercial	Residential
2013	4.13	3.89	4.1
2012	4.97	4.85	
2011	5.01	5.33	5.4

Installed prices for solar PV systems in Florida are some of the lowest in the country. When comparing median state-level installed prices, Florida installed prices were the lowest in the country, coming in at $\$5.0/W_{DC}$ for residential and commercial PV systems between 10–100 kW, compared to $\$7.2/W_{DC}$ for Texas at the high end of the spectrum.⁹⁹ For residential and small commercial systems (under 10 kW), Florida, again, had some of the lowest prices in the country at $\$4.6/W_{DC}$ in 2012.¹⁰⁰

Solar energy offers multiple benefits such as cost predictability, financial risk hedge (e.g., fuel price hedge and market price response), environmental benefits (e.g., reduction in CO₂ and criteria pollutants and water), and economic development (e.g., jobs and tax revenues). Solar can offset the higher operating costs of natural gas-fired facilities and supplement base load generation to help meet peak demand. Rooftop solar systems can produce large summer peak reductions during hot summer months as systems produce the most power on sunny summer afternoons which coincide with high demand for air conditioning. Studies have shown that residential solar panel systems can cut electricity demand during peak summer hours by 58 percent.¹⁰¹ As climate change causes temperatures to rise and as Florida’s population and energy

⁹⁵ SEIA, *Solar Market Insight Report 2014 Q1*, <http://www.seia.org/research-resources/solar-market-insight-report-2014-q1>.

⁹⁶ NREL. “Residential, Commercial, and Utility-Scale Photovoltaic (PV) System Prices in the United States: Current Drivers and Cost-Reduction Opportunities,” February 2012; DOE, (Barbose et al.) “Tracking the Sun VI An Historical Summary of the Installed Price of Photovoltaics in the United States from 1998 to 2012,” July 2013.

⁹⁷ Direct Test. of Helena (Lee) Guthrie, Document No. 01497-14 (Apr. 2, 2014), at 51, *available at* .

⁹⁸ Direct Test. of Thomas R. Koch, Document No. 01475-14 (Apr. 2, 2014), at 29, *available at* www.psc.state.fl.us/library/FILINGS/14/01475-14/01475-14.pdf.

⁹⁹ David Feldman, et al., *Photovoltaic System Pricing Trends: Historical, Recent, and Near-Term Projections – 2013 Edition 5* (Nat’l Renewable Energy Lab. Presentation, July 16, 2013), *available at* <http://www.nrel.gov/docs/fy13osti/60207.pdf>.

¹⁰⁰ *Id.* at 17.

¹⁰¹ Pecan Street Research Institute, “Report: Residential Solar Systems Reduce Summer Peak Demand by Over 50% in Texas research trial” (Nov. 18, 2013), <http://www.pecanstreet.org/2013/11/report-residential-solar-systems-reduce-summer-peak-demand-by-over-50-in-texas-research-trial/>.

demands grow, solar generation can play a critical role in securing reliable, low-carbon power for Floridians.

Shifting Florida's energy mix to increase reliance on generation from solar and wind will not only lead to greater security and lower prices for ratepayers, but will also have a positive impact on the State's economy. Investments in solar power create jobs in construction, manufacturing, operations and maintenance, and support sectors. A 2014 report showed that more than 4,000 Floridians are now working in the solar power industry and Florida has jumped from twelfth to seventh place overall in national rankings for solar jobs.¹⁰² Solar jobs in Florida grew by approximately 60% from 2012 to 2013.

In addition to in-state generation, there are several ways that Florida may be able to tap low-cost out-of-state renewable energy resources, such as wind power, in order to meet its Clean Power Plan target. As EPA recognizes in its proposal, it is important to ensure that there is no double-counting of renewable resources. EPA has asked for comment on several ways this might be accomplished, including whether states should be permitted to rely on out-of-state renewable energy resources through purchase of renewable energy credits ("RECs").¹⁰³ EPA has also indicated that states may propose joint or complementary state plans to lower costs; Florida could adopt a state plan that incorporated agreements with other states, allowing Florida to tap renewable resources in those states.

The advantage of incorporating out-of-state renewables is the opportunity to access states with high wind potential. Wind capacity in the U.S. is expanding quickly and utilities signed or announced over 40 long-term power purchase agreements ("PPAs") with wind developers for 5,670 MW of new wind (75 percent of the total) in 14 states in 2013.¹⁰⁴ PPA prices have fallen from a U.S. average of nearly \$70/MWh in 2009 to below \$40/MWh in 2012.¹⁰⁵ In 2011/2012, PPAs in the Midwest generally ranged from \$20–\$40/MWh, becoming competitive with natural gas plant variable costs at around \$30/MWh.¹⁰⁶

Importing cheaper renewable resources from other states can help lower costs and decrease risks as in-state renewable capacity expands. Georgia, for example, has already done just that. In 2013, Georgia Power entered into a PPA with EDP Renewables for 250 MW of wind power from Oklahoma—enough to power more than 50,000 homes.¹⁰⁷ Similarly, the Tennessee Valley Authority, Alabama Power, and the Southwestern Electric Power Company have also all entered into PPAs to import Midwestern wind energy over the past few years.¹⁰⁸

¹⁰² The Solar Found., *National Solar Jobs Census 2013* (Jan. 2014), available at www.thesolarfoundation.org/research/national-solar-jobs-census-2013.

¹⁰³ 79 Fed. Reg. at 34,919.

¹⁰⁴ Am. Wind Energy Ass'n, *AWEA U.S. Wind Industry Third Quarter 2013 Market Report* (Oct. 31, 2013), available at <http://www.awea.org/3Q2013>.

¹⁰⁵ U.S. Dep't of Energy, *2012 Wind Technologies Market Report* (Aug. 2013), available at <http://emp.lbl.gov/sites/all/files/lbnl-6356e.pdf>.

¹⁰⁶ *Id.* at viii; see also Conway Irwin, "Mid-West Wind Now Competitive with Gas and Coal", *Breaking Energy* (Dec. 5, 2013). <http://breakingenergy.com/2013/12/05/midwest-wind-cost-competitive-with-gas-and-coal/>.

¹⁰⁷ Georgia Power, "Georgia Power to acquire 250 megawatts of wind energy from leading developer EDP Renewables" (Apr. 22, 2013). Archive. <http://www.georgiapower.com/about-us/media-resources/newsroom.cshml>.

¹⁰⁸ See Southern Alliance for Clean Energy, *Georgia Power has Gone with the Wind* (May 20, 2014), <http://blog.cleanenergy.org/2014/05/20/georgia-power-has-gone-with-the-wind/> (citing Tennessee Valley Auth.,

Expanding both energy efficiency measures and renewable generation can diversify Florida's power mix, provide greater operational flexibility for utilities, protect against fuel price fluctuations, and reduce regulatory compliance costs of conventional generation. Supply diversification is a primary component of Florida's Renewable Energy Policy, which seeks to promote the development of renewable energy and diversify fuel sources. The Commission has recognized the role of renewable generation in contributing to diversity and reducing fossil fuel dependence.

In short, Florida's clean energy potential and ability to scale up efforts without undue impact to ratepayers is far greater than what EPA has calculated in setting the State's target. Expanding renewable energy generation, taking advantage of the State's abundant resources and creating new clean energy jobs, is a reasonable and achievable option to meet Florida's Clean Power Plan 2030 target. The Commission has a unique opportunity to regain the Sunshine State's role as a leader on solar power and clean energy and secure the of distributed solar power for customers, consistent long-standing Florida policy that it is in the public interest to advance renewable and low-carbon emitting electric power and to serve customers with the lowest cost possible resources.¹⁰⁹

V. Conclusion

For these reasons, we respectfully urge the Commission to undertake steps necessary to plan for future compliance with the Clean Power Plan and to develop the regulatory support to ensure that such compliance can be achieved by cost-effective means, especially energy efficiency measures. Ramping up investment in energy efficiency now will make compliance significantly easier for Florida by creating a bank of efficiency investments that will continue to deliver savings available for compliance in 2020 while also delivering lower bills to customers in the near-term. If the Commission were to wait until the next goals docket to react to the Clean Power Plan, Florida will miss the opportunity to bank efficiency gains now.

Specifically, we recommend that the Commission open a docket in advance of the proposed June 30, 2016 deadline for submittal of Clean Power Plan state compliance plans in order to investigate how much energy efficiency Florida utilities can implement to help Florida meet EPA's proposed emission rate of 740 lbs/MWh. As part of that docket, Florida's utilities should be required to provide information regarding the feasibility, costs, and benefits of achieving energy savings at the advanced levels recommended herein, i.e., annual incremental savings of 2 percent of retail sales by 2020, as well as a full accounting of the benefits of distributed solar power, of the effectiveness of solar rebate programs. We recommend that the Commission retain an independent analyst to determine what levels of energy efficiency and

Energy Purchases from Wind Farms, http://www.tva.com/power/wind_purchases.htm); Platts Electric Power Daily, State Regulators OK Alabama Power 202-MW wind PPA, (Sept. 8, 2011), *available at* <http://www.tradewindenergy.com/WorkArea/showcontent.aspx?id=2056>; Southwestern Electric Power Company, Wind Power Purchases, <https://www.swepco.com/info/projects/WindPowerPurchase/>; *see also* American Wind Energy Association, Georgia Power to Acquire 250 MW of Wind; Utility Underscores Strategy of Portfolio Diversification (Apr. 29, 2013), http://www.aweablog.org/blog/post/georgia-power-to-acquire-250-mw-of-wind-utility-underscores-strategy-of-portfolio-diversity_1.

¹⁰⁹ *See, e.g.*, Sections 186.801 (Ten-Year Site Plans); 187.201(11)(a) (State Comprehensive Plan); 366.81 (FEECA Legislative Findings and Intent); and 377.601, F.S (Energy Resources Legislative Intent); *see also* Phase 1 Report: Florida's Energy and Climate Change Action Plan Pursuant to Executive Order 07-128 (Nov. 1, 2007), *available at* http://www.broward.org/NaturalResources/ClimateChange/Documents/20071101_final_report.pdf.

renewable energy generation are feasible and to investigate the opportunities to establish a revenue decoupling mechanism to help remove any financial disincentive to increasing utilities' energy savings.

We appreciate the opportunity to submit these comments and look forward to further engagement with the Commission as the Clean Power Plan planning and implementation process unfolds.

Respectfully submitted,



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