NEXTGEN CLIMATE AMERICA

COMMENTS ON BEHALF OF NEXTGEN CLIMATE AMERICA TO THE FLORIDA PUBLIC SERVICE COMMISSION ON THE CLEAN POWER PLAN

Introduction

NextGen Climate America (NGCA) appreciates the opportunity to comment on and provide recommendations to the Florida Public Service Commission on proposed federal regulation of carbon dioxide from exiting power plants under section 111(d) of the Clean Air Act (the Clean Power Plan).

NGCA is a non-partisan, non-profit organization dedicated to creating a level playing field so that low-carbon advanced energy solutions can fairly compete with incumbent fossil fuel interests. Launched in 2014, we develop and promote policies to prevent climate disaster and preserve American prosperity. We are committed to supporting innovative leadership at the state level that will help to end the unlimited dumping of pollution into our atmosphere and further the implementation of commonsense national safeguards to protect the health, environment, and economy for current and future generations.

The Public Service Commission's comments to the United States Environmental Protection Agency (EPA) on the Clean Power Plan should indicate that Florida is in a strong position to meet the emissions reduction targets EPA has proposed for the state. Many of the steps that Florida should consider for the sake of promoting the economic, health, and environmental benefits of a strong in-state clean energy sector, which have been described in comments from Clean Energy, Sierra Club, NRDC, Advanced Energy Economy, and others, will also have the added benefit that they will reduce carbon pollution from the state's power sector and help the state meet or exceed the forthcoming Clean Air Act requirements.

Florida should therefore seek to achieve the bulk of these reductions by tapping into the state's vast reservoir of untapped potential for energy efficiency, and by taking advantage of Florida's excellent solar and other renewable energy resources. These comments will provide illustrative examples of how Florida can use these resources to achieve required reductions in carbon pollution and provide policy recommendations for how the state can promote these technologies' deployment at scale.

In addition to focusing on Florida's in-state energy mix, the State can best develop a state plan that will allow it to implement the Clean Power Plan at lowest cost by pursuing full cooperation of Floridian stakeholders. To facilitate this outcome the state should implement a transparent stakeholder process for plan development, engage in regular inter-agency working groups, and work with potential partners in other states to explore options for developing a multi-state plan.

A summary of these recommendations is provided in *Appendix A*. Sample calculations are provided in *Appendix B*.

1. The Value of Renewable Energy to Clean Power Plan Compliance

Making changes to Florida's clean energy policy and taking other steps to promote the growth of new and low-carbon energy resources can help the state to meet its compliance obligations under the Clean Power Plan. If Florida pursues renewable energy at levels currently being targeted by most states, sets energy efficiency goals that would be considered moderate among states actively pursuing efficiency, and implements policies to enable the state to reach these goals, it can meet most or all of its required reductions without needing to pursue costlier options such as building new fossil fuel or nuclear power plants.

Florida's emissions intensity target is 740 lbs CO_2 per megawatt-hour by 2030, a significant, but achievable reduction from its adjusted 2012 carbon intensity of 1,199 lbs/MWh. These emissions intensities reflect the total electric sector carbon emissions (as the numerator) divided by qualifying electricity generation (the denominator).

One way Florida can begin to reduce its carbon pollution is to scale up renewable energy resources. By adding new clean energy to the mix, Florida can significantly reduce in-state power plant emissions intensities. Every new megawatt-hour of renewable energy produced in Florida has the effect of spreading existing emissions levels across a larger number of megawatt-hours of generation – holding the numerator constant while increasing the denominator –thereby reducing the overall emissions intensity.

Florida has an excellent solar resource base, and it is in a position to develop strong biogas, bagasse-based and other fast-growing biomass, and offshore wind[1] resources, to say nothing of next-generation renewables such as wave and tidal power. While its onshore wind resource is small compared to many states, it is still a substantial resource that can contribute meaningfully to reducing the carbon intensity of Florida's energy sector. At present, Florida has only made a very modest beginning of exploring the potential to use its free and abundant solar energy for electric power and solar water heating. Despite having a significantly better resource than most states – the third best in the nation – Florida has only about one sixteenth the installed solar power generation of New Jersey, where there is significantly less sunshine and less land area to balance cloudy and sunny times. Florida should therefore prioritize policies that encourage solar energy deployment among other renewable resources.

Policy Recommendation: Implement a Renewable Portfolio Standard

Florida should implement a Renewable Portfolio Standard requiring utilities to provide a minimum of 15% of statewide electric sales from renewable energy sources by 2025 or sooner. Florida is among the minority of states that do not currently have either a legally binding Renewable Portfolio Standard or voluntary Renewable Energy Goals supported by

[1] Analysis by Oceana suggests that 16% of Florida's electricity needs could be economically met by offshore wind alone: http://oceana.org/sites/default/files/Florida_0.pdf.

incentives and other policies. This is a significant increase from current levels, but still a relatively conservative goal in line with the renewables goals contemplated for deployment on shorter timelines in many states' Renewable Portfolio Standards. 25 U.S. states and territories currently have goals higher than 20%.[2]

The fact that Florida has such a strong solar resource and so little solar deployment compared to other states with a comparable or worse resource is evidence that market barriers currently exist that slow the growth of this technology. As others, such as NRDC, have described elsewhere in this docket, even Florida's small solar industry is providing significant job-creation benefits and bill reductions to residential customers. As prices for solar panel installations continue to fall, existing market barriers will become an increasing drag on Florida's economy and on consumers' ability to choose energy sources that suit their needs and preferences.

Policies that will help to overcome the market barriers to solar energy deployment include:

1. A solar carve-out in the RPS requiring a substantial portion of all new renewable resources to be derived from utility and distributed solar energy. Given the strength of Florida's resource, and the fact that historical solar deployment has lagged to such an extent that there is significant pent-up demand for solar energy, a 35% combined solar carve out is appropriate, with a minimum of 10% of new renewable energy coming from distributed solar generation.
2. Full Net Energy Metering (or an alternative Value of Solar tariff based on the full value of solar resources to the broader electric grid, based on time of delivery of solar energy to the grid).
3. Removal of restrictions on third-party rooftop solar ownership and leasing arrangements.
4. Solar tax incentives, such as sales tax waivers and temporary property tax exemptions for augmented property values created by solar installations.
5. Policies enabling community scale shared-solar projects, such as virtual net metering and brownfield development tax credits.

In addition to promoting the deployment of solar power, any Renewable Portfolio Standard will also help to promote all qualified renewable energy resources. Because this incentive is attractive to many energy producers, care must be take to ensure that the policy focuses on incentivizing only those energy technologies that are environmentally preferable to legacy assets and does not provide a windfall to existing conventional energy technologies such as unsustainable biomass combustion.

[2] NATIONAL CONFERENCE OF STATE LEGISLATORS, State Renewable Portfolio Standards and Goals, http://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx.

Whole-tree biomass consumption can have climate impacts even greater than those caused by burning coal, and it should be wholly excluded from any renewable portfolio standard.[3] The carbon intensity and other environmental impacts of many other forms of biomass energy may also be substantial enough to warrant exclusion. Crediting non-sustainable biomass combustion or co-firing as if it were a clean energy resource would therefore reduce the RPS's value as a means to promote the development and deployment of renewable power in Florida and will not help the state meet its carbon reduction target.

A fully-implemented Renewable Portfolio Standard could significantly contribute to Florida's required pollution reductions, and should therefore be a central component of the state's plan to implement the Clean Power Plan. The following examples illustrate this potential.

> *Example 1: Adding Renewable Generation*
> Generators in Florida currently emit about 107.5 million metric tons of CO_2 while generating about 197.7 million megawatt-hours of electricity from sources that contribute to EPA's goal for the state in the CPP,[4] the resulting emissions intensity is about 1199 lbs CO_2/MWh. Suppose the state holds those emissions constant while adding fifteen percent new renewables generation, based on total 2012 sales volume of approximately 221 million MWh.
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> Adding 15% renewables would add another 33.2 million megawatt-hours of generation to the denominator, without increasing the numerator. In other words, those 107.5 million metric tons are now spread across 231 million megawatt-hours, instead of only 197.7, for an intensity of about 1027 lbs CO_2/MWh. This gets the state **37.6**% of the way to its target, without making any other changes to the electric sector.[5]

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[3] See, e.g., UNITED KINGDOM DEPARTMENT OF ENERGY AND CLIMATE CHANGE, *Lifecycle Impacts of Biomass Electricity in 2020* (July 2014), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/336038/beac_report.pdf; Viney P. Aneja, *et al., letter to Mr. Joe Goffman, Senior Counsel, Office of Air and Radiation* (June 18, 2014), http://switchboard.nrdc.org/blogs/slyutse/Scientist%20letter%20to%20EPA%20on%20biomass%20carbon%20accounting_June%2019%202014.pdf; Mark Harmon, PhD, *et al., letter to Goffman, Senior Counsel, Office of Air and Radiation* (Nov. 26, 2013), http://switchboard.nrdc.org/blogs/slyutse/Scientist%20letter%20to%20EPA_Nov%20%2026%202013_FINAL%20w%20signatures.pdf; BIOMASS ENERGY RESOURCE CENTER, *Biomass Supply and Carbon Accounting for Southeastern Forests* (Feb. 2012), http://www.southernenvironment.org/uploads/ publications/biomass-carbon-study-FINAL.pdf.

[4] This example and those that follow are for illustrative purposes only. Hypothetical figures are selected to approximate both 2012 electric data in the Florida Electricity Profile, last updated May 1, 2014, http://www.eia.gov/electricity/state/Florida/ and data used in calculating state targets in the Clean Power Plan.

[5] See Appendix B for a summary of this and subsequent example calculations.

While these reductions are substantial, the compliance benefits of new renewables are compounded as zero-carbon power reduces the need for higher-carbon generation sources. As load is met by new renewables, the state can rely less on aging and less-efficient dirtier resources with escalating fuel and retrofit equipment costs, such as coal-fired power plants.

> *Example 2: Replacing High-Carbon Energy with Zero Carbon Energy*
> Suppose Florida continues to produce 197.7 million MWh, and brings online as much new renewable generation as in *Example 1* – 33.2 million MWh. But if that new renewable energy renders an equal amount of existing coal generation unnecessary, each new megawatt-hour of renewables represents a reduction in the numerator of about 1.02 metric tons (or 2248 pounds) – the amount of carbon pollution that would otherwise have been emitted by burning coal. So now those 197.7 million MWh of electricity are generated while emitting only about 73.7 million metric tons CO_2, rather than 107.5. The result is that Florida's emissions intensity would be reduced to 822 lbs CO_2/MWh.
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> By holding its total generation constant while replacing some of its dirtiest energy with new renewables, Florida could be over **82%** of the way to meeting to its Clean Power Plan emissions target.
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> Replacing 40 million MWh of coal with renewables could achieve **100%** of required reductions.[6] This requires only an additional 3.2% renewable contribution over the relatively modest goal of 15%, and would keep Florida's goals very much in the mainstream of U.S. states' renewables targets.

2. The Value of Energy Efficiency to Clean Power Plan Compliance

How Florida receives compliance credit under the Clean Power Plan for energy savings due to efficiency standards and investments will depend somewhat on the overall structure of the state plan it adopts. If the state adopts the goal provided in the form of a target emissions rate of 740 pounds per megawatt-hour, the state will need to quantify the energy savings from these measures. These savings could then be treated as qualifying new generation for the denominator in the rate, without any increase in tons of carbon dioxide emitted for the numerator.

But Florida may also adopt a mass-based standard that will achieve an environmental outcome equivalent to or better than the emissions rate standard. Under a mass-based standard, emissions reductions from energy efficiency do not require any special

[6] Presumably, holding total generation to 197.7 million MWh would also require energy efficiency efforts, which may also be credited to Clean Power Plan compliance, so under this scenario Florida may generate excess compliance credits. These credits could be auctioned into an interstate market, if Florida pursues a multi-state compliance strategy.

accounting. Where efficiency reduces the need to operate polluting power plants, the overall emissions will also decrease, helping the state to meet its mass-based emissions limit. The latter approach provides for reduced administrative complexity. If Florida pursues a multi-state compliance strategy, these same considerations will hold, but there will be an added layer of complexity to adopting a rate-based standard across multiple states. States participating in the Regional Greenhouse Gas Initiative, which Florida may elect to join or replicate, have applied a voluntary region-wide mass-based standard for several years. Leveraging the experience of these states may help further simplify the administration of a mass-based standard.

The EPA has not yet provided states with detailed guidance on how to develop an approvable mass-based emissions standard, but it has indicated that states may pursue this option. For the purposes of these comments, examples and discussion will assume that Florida adopts the EPA's proposed emissions rate-based standard. But regardless of the approach that Florida takes, energy efficiency can play a prominent role in achieving substantial carbon pollution reductions and meeting federal requirements in the Clean Power Plan.

Florida's existing energy efficiency policies represent a good starting place for efforts that can help the state meet its emissions reductions targets in the Clean Power Plan. These efforts should be scaled up according to existing best practices in leading jurisdictions. Recently proposed plans to essentially end utility efficiency programs should be rejected.

A. The Role of Building Energy Codes and Other State Actions

State actions, such as implementing building energy codes may create power sector emissions reductions that can be used for compliance with the Clean Power Plan. Because commercial and residential buildings represent a large percentage of electricity consumption, Florida's building code should be updated to reflect 2012 IECC levels of energy performance, and a regular updating schedule should be implemented to keep pace with each IECC revision. This updating process may produce substantial energy savings and help to reduce associated carbon dioxide emissions. In order to maximize the effect of these regular code updates the state should continue and expand training, enforcement, and stakeholder advisory efforts associated with the current 2012 update to the 2010 building energy code while planning to introduce a more stringent code in coming years.

The Environmental Protection Agency is currently accepting comments on how states may apply reductions like these to the implementation of the Clean Power Plan. One possible implementation strategy may be for the state to quantify the emissions reductions associated with the periodic revisions to the state building energy standards, compared to a counterfactual baseline based on maintaining standards as they stood in 2012 and a slower update schedule. These emissions reductions could then be converted to compliance credits that the state could auction to regulated entities in the state, or on an inter-state market as part of a regional compliance strategy. Auction proceeds could then be reinvested in efficiency or renewable energy programs that would benefit utility customers

while helping to achieve further emissions reductions. Alternatively, they could be returned to utility customers as a bill rebate to offset any rate impacts associated with the utility's purchase of allowances.

The current text of the proposed Clean Power Plan does not provide explicit guidance for the implementation of state action-based emission reductions as compliance instruments.[7] Therefore, Florida should both A) explore the emissions reduction value of updating the building energy code and other state regulations that reduce energy consumption and emissions, and B) request additional guidance from EPA on how these reductions can be treated as compliance instruments in an approvable state plan.

B. The Role of Utility Efficiency Programs

Despite Florida's past and present efforts to encourage utility energy efficiency investments, the state continues to leave this lowest-cost energy resource almost completely untapped. Government entities have correctly found that the Florida Energy Efficiency and Conservation Act remains in the public interest, but this law's very modest requirements and lack of any binding targets limit its ability to incentivize efficiency investments. This is part of the reason Florida continues to capture far less of its efficiency potential than states that have established efficiency goals or binding targets,[8] Comments from Clean Energy elsewhere in this docket correctly identify the pattern of under-valuation of energy efficiency by many Florida utilities, and the loss of significant potential benefits to utility customers caused by this under-valuation. Several policies for approving utility-sponsored energy efficiency programs also make it difficult for utilities to implement programs that are working in other states. As a result, much of the low-hanging fruit of energy efficiency is left to rot on the vine, unharvested.

The primary roadblocks include the Public Service Commission's application of an overly restrictive cost-effectiveness test, the lack of a predictable and transparent utility cost-recovery framework, and a lack of enforceable directions that utilities treat demand-side resources on an equivalent basis with supply-side generation in long term resource plan filings.

All of these roadblocks can be removed either through legislation or through the PSC's use of its existing authority to adopt policies that will more appropriately value energy efficiency as an integral part of the State's energy system. Instituting an Energy Efficiency Resource Standard would provide many of the same benefits as a Renewable Portfolio

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[7] Procedures for quantifying the credits will differ somewhat depending on whether Florida adopts a rate- or mass-based standard, but the State has the ability to take credit for these reductions under either form. In either scenario, credits can be sold to regulated emitters or in an inter-state market.

[8] See, e.g., ACEEE Policy Brief, "State Energy Efficiency Resource Standards (EERS)," (July 2013), http://aceee.org/files/pdf/policy-brief/eers-07-2013.pdf.

Standard. At minimum, though, the State should take the steps outlined below to remove the current impediments to Energy Efficiency in Florida.

Policy Recommendation: Replace Current Cost-Effectiveness Screens for Efficiency Programs.

Florida's PSC should not rely on the Ratepayer Impact Measure (RIM)/Non-Participant Cost Test as a cost-effectiveness screen for utility energy efficiency programs or allow utilities to do so. No utility commissions currently rely on the RIM test as a primary cost effectiveness screen. This test is disfavored as a screen by all other utility commissions because it is not an effective test for assessing the cost-effectiveness of efficiency measures or programs. Rather, it is a measure of what, if any, rate-related disparities may exist between customers who take advantage of efficiency programs being offered and those who choose to forgo that opportunity. Utilities' use of the "two-year payback" screen as a proxy for free-ridership is unheard of in any other jurisdiction, and it compounds the problems created by relying on the arbitrarily-restrictive RIM test by placing an additional inappropriate restriction on eligible programs.

The National Home Performance Council succinctly summarizes the inappropriateness of the RIM test as a cost-effectiveness screen in a recent report:

> We recommend that the standard Ratepayer Impact Measure test not be used for screening energy efficiency resources. Rate impacts are not a matter of cost-effectiveness; they concern transfers from non-participants to participants. Furthermore, the RIM test is not a good indicator of customer equity: It is overly narrow, ignores many of the benefits of energy efficiency programs, is inconsistent with the assessment of supply-side resources, does not necessarily reflect the actual impact on rates, and deprives customers of the opportunity to lower their bills through energy efficiency measures.[9]

Florida utilities' reliance on the RIM test misses the fundamental point of considering the cost-effectiveness of energy efficiency measures: that efficiency resources should be regarded as a part of the overall electrical resource mix on an equivalent basis with supply-side resources.

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[9] NATIONAL HOME PERFORMANCE COUNCIL, *The Resource Value Framework*, p. 9 (Mar. 28, 2014), http://www.synapse-energy.com/Downloads/SynapseReport.2014-03.0.Resource-Value-Framework.14-027.pdf. See also STATE ENERGY EFFICIENCY ACTION NETWORK, *Analyzing and Managing Bill Impacts of Energy Efficiency Programs: Principles and Recommendations*, p. 1 (2011), https://www4.eere.energy.gov/seeaction/system/files/documents/ratepayer_efficiency_billimpacts.pdf: "It is important to note at the outset that the Ratepayer Impact Measure (RIM) Test—used by some states to evaluate the cost-effectiveness of energy efficiency programs—**is an insufficient way to assess rate and bill impacts**." (Emphasis added).

New efficiency programs are essentially new capacity in the energy system, and where they are the least cost capacity option, they should be selected. For this reason, the Program Administrator Cost Test (also known as the Utility Cost Test) or the Total Resource Cost test are both more appropriate measures of cost-effectiveness. If efficiency measures pass either of these latter tests, but are not adopted because they fail the RIM test, the state is instructing the utility to prefer *higher cost* supply side resources at the expense of all ratepayers, rather than investing in lower cost resources that can also help customers to reduce their electric bills.

Instead of relying on the RIM test to address any potential customer equity concerns, the State should address these concerns separately from the cost-effectiveness screening, "by comprehensively analyzing rate, bill and customer participation impacts, and by ensuring that all customer classes and segments have reasonable access to energy efficiency program opportunities."[10]

Policy Recommendation: Require Full Investment in Least Cost Efficiency Before Approving New Supply-Side Resources

Florida's investor-owned utilities must periodically file long-term energy plans with the PSC, describing what assets they will need in order to meet customer electrical load in coming years. Customers' energy needs can be met either by reducing the amount of energy they must buy to run their homes and businesses, or by building new generation facilities to supply more electricity as needed. For this reason, a utility should consider demand-side measures (such as efficiency investments) alongside any supply-side measures (such as new power plants), and invest in whatever option is least-cost, while meeting other regulatory and reliability constraints.

But, in order for utilities to fully consider demand-side options as potential resources in these plans, the PSC should require that they realistically consider all least-cost options in their plan. Utilities are capable of creating levelized cost curves for demand-side resources in the same manner they would for supply-side resources, so that they are comparable on a cents-per-kilowatt-hour basis. To the extent that demand-side resources are least-cost, the energy plan should select these resources up to their maximum available deployment level, until the cost of deploying more demand-side resources becomes higher than the cost of investing in new generation.

By imposing additional constraints on what resources the utility consider, the RIM test and artificial two-year payback screen exclude low cost resources, and drive up costs for all customer classes over the medium- and long-term. Utilities may therefore make investment plans that are not in the best economic interest of the utility customers.

This result is evident in the current combination of proposals before the PSC. Utilities are seeking to slash their investments in Energy Efficiency, a least-cost resource that generally

[10] National Home Performance Council at p. 9.

can be deployed quickly across a wide customer base for $.02 to $.05 per kilowatt-hour saved, while simultaneously pursuing highly risky and expensive generation assets. The approved new nuclear units at Turkey Point, for instance, which will cost customers billions and may never see the light of day, might not be necessary at all if utilities preferentially invest in cheaper, cleaner efficiency. It defies understanding that any utility could claim that it both needs to build enormous and enormously costly new generation assets while at the same time asserting that there are no economically achievable efficiency opportunities available. And yet, that is the present state of affairs in Florida.

It cannot be the case that Florida's past efficiency efforts have exhausted all potential for future savings even as bills are significantly higher than the national average and other states pursue savings levels up to seven times more aggressive than Florida's historical programs. To build new plants to meet growing demand while doing nothing to reduce that demand creates an unnecessary financial burden for Floridians and can cause the state to miss out on an excellent opportunity to reduce the cost of compliance with the Clean Power Plan by scaling up its efficiency efforts.

Policy Recommendation: Implement Decoupling and Performance Incentives to Promote Aggressive and Effective Efficiency Investments

Under current rate structures, utilities face a tremendous disincentive from proposing aggressive, effective efficiency programs. Utilities' financial incentives are currently aligned towards always selling more kilowatt-hours of electricity. States that have had success with achieving efficiency goals have all had to address this "throughput incentive" in order to find a way for utilities to continue to pay off previously-approved investments in power plants and other durable infrastructure while simultaneously helping customers to reduce bills by buying fewer kilowatt-hours of electricity. Right now, Florida utilities do not have a clear framework for cost recovery and reasonable rate of return on efficiency investments, and they therefore have little incentive to develop innovative and cost-effective efficiency plans.

A tremendous volume of literature exists discussing the relative pros and cons of various rate designs and other recovery methods to incentivize utilities to invest in the full range of available demand-side resources. The consensus in the expert community converges on fixed-cost revenue decoupling as the best means to remove the throughput incentive as a barrier to efficiency investments.[11]

[11] For more information on decoupling, please see guidance from the National Association of Regulatory Utility Commissioners at http://epa.gov/statelocalclimate/documents/pdf/supp_mat_decoupling_elec_gas_utilities.pdf; from the Regulatory Assistance Project at http://www.raponline.org/featured-work/utility-business-models-providing-incentives-for-energy-savings; from the Natural Resources Defense Council at http://www.nrdc.org/energy/decoupling/files/decoupling-utility-energy.pdf; and from Pamela Morgan at http://switchboard.nrdc.org/blogs/rcavanagh/Decoupling%20report%20Final%20Feb%202013%20-%20pdf%20%282%29.pdf.

Decoupling allows utilities to recover all and only their authorized fixed costs, regardless of their volume of kilowatt-hour sales. In this way, utilities do not face the risk of under-collecting their authorized costs if sales shrink due to effective efficiency programs, and customers do not risk over-paying utilities beyond their authorized fixed costs if sales are higher than projected. Decoupling can be implemented through a volumetric rate with no or minimal fixed bill charges as the most effective policy to protect both customer and utility interests.

Utilities should be encouraged to propose this policy in their next rate cases.

C. *Integrating Energy Efficiency into a State Plan for Carbon Pollution Reductions*

Energy Efficiency programs can contribute to Clean Power Plan compliance in much the same way as Renewable Energy. In order to credit emissions rate reductions attributable to energy efficiency programs under a plan pursing an emissions intensity target (as opposed to a mass-based target), Florida will need to engage in a rigorous evaluation, measurement, and verification process (EM&V) to quantify the electricity and emissions savings created specifically by these programs. This process involves well-established technical and social science techniques, and is employed by utilities and utility commissions across the country to ensure that utility incentive and cost-recovery is just and reasonable.

The PSC does not currently employ a fully-developed utility EM&V process, but developing one will help to ensure that future and existing utility efficiency programs operate effectively. Once established, the state's methodology will likely be acceptable to EPA as well for inclusion in the state plan implementing the Clean Power Plan, provided that it follows standard industry practices.

When the energy savings due to efficiency programs are quantified and verified, these savings could be treated as additional generation for the emissions rate denominator. Efficiency therefore achieves much the same effect as introducing new low-carbon generation sources.

Again, an example is illustrative of the benefit of this approach.

> *Example 3: Improving Efficiency*
> Suppose that under a business as usual scenario Florida's sales are projected to grow over time, creating the need for 10% more in-state generation than in 2012. But, if Florida offsets 10% of 2012 sales with energy efficiency programs, generation can be reduced 22.1 million MWh from that business as usual baseline.
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> This level of performance is in line with the projections employed by EPA in setting Florida's performance standard, and 25 states currently have legally-binding energy efficiency targets, many of which require significantly more cumulative savings than 10% by 2030. By meeting a modest 10% efficiency goal, generation could remain

constant at 197.7 million MWh rather than growing to 219.8 million MWh. If those efficiency gains are properly accounted for in the state plan through appropriate EM&V, the state's numerator (tons CO_2) will stay constant, while the denominator increases, just as it did in *Example 1*.

The state's 107.5 million metric tons CO2 emissions are thus spread across 219.8 million MWh, and the state's new overall emissions intensity is 1078 lbs/MWh – over **26**% of the way to the Clean Power Plan target.

But this example assumes emissions remain constant. If Florida adopts these efficiency measures *and* deploys new renewable energy as a partial replacement for its dirtiest energy, as in *Example 2*, the results are striking:

Example 4: Improving Efficiency while Replacing Dirty Power with Clean Power
If the same efficiency gains as in *Example 3* hold, but Florida generates 33.2 million of those 197.7 million MWh from new zero carbon renewables instead of coal, the denominator stays 219.8 million MWh, as in *Example* 3, but the numerator is now 73.7 million metric tons, as in *Example 2*. The state's emissions intensity would be reduced to 739 lbs/MWh – slightly *lower* than the Clean Power Plan requires.

By meeting relatively conservative efficiency goals and ramping up a moderate amount of renewable power to reduce the need to run its dirtiest power plants, Florida can achieve **100**% of required reductions for the Clean Power Plan.

While these examples are merely illustrative, they both demonstrate the value of efficiency and renewables for meeting Florida's Clean Power Plan targets, and show that those targets are readily achievable employing only two of the four building blocks EPA considered. Florida can go well beyond these levels of reductions by adopting other emissions-reducing strategies, such as the other two building blocks or entering into a regional agreement with other states to find even lower-cost available reductions.

The State can apply policies that promote clean energy to achieve substantial emissions reductions while promoting home-grown energy resources and jobs in the growing clean energy sector. For this reason, the Public Service Commission should comment to EPA that Florida is ready to comply with the targets set for it in the Clean Power Plan with an approach that relies primarily on renewable energy development and a better approach to energy efficiency.

3. Recommendations for Plan Development Process and Regional Compliance

In addition to focusing on Florida's in-state energy mix, the State should engage in a process that will allow it to implement the Clean Power Plan at lowest cost and with the full cooperation of Floridian stakeholders. To facilitate this outcome the state should take the following steps:

1. Convene new or existing inter-agency working groups, chaired by the Department of Environmental Protection (DEP), on a regular basis to coordinate on Clean Power Plan state plan development. This working group should include representatives from DEP, the PSC and its staff, the Governor's Office, and other relevant government agencies.

2. DEP, either individually or in coordination with the inter-agency working group, should schedule regular open meetings for public input on the plan. DEP should also schedule a series of small group or individual meetings with stakeholders from communities and groups focused on environmental protections, public health, economic justice, emerging industries, renewable energy, energy efficiency, and other relevant issues, in addition to regulated industry.

3. DEP and other workgroup members should attend workshops and other meetings with their counterparts in neighboring states, with the aid of a professional facilitator, to discuss the possibility of developing a multi-state compliance plan and/or joining the existing Regional Greenhouse Gas Initiative (RGGI) as a component of the state plan.

While every state individually can take steps sufficient to meet the Clean Power Plan's state emissions targets, it may also be the case that multi-state or regional cooperation can allow for lower-cost compliance options. The EPA has estimated, based on the application of the IPM model in its regulatory impact assessment for the Clean Power Plan, that regional approaches to implementation can reduce compliance costs approximately 17% nationwide. As an indication of some of the potential economic value of multi-state cooperation, participants in RGGI have cooperated to reduce emissions while accruing $1.6 billion in benefits / savings for state residents (?) between 2009 and 2011 alone.[12]

Because Florida relies on imports for a substantial portion of its electricity, it has a strong interest in ensuring a consistent implementation of carbon pollution reduction measures

[12] THE ANALYSIS GROUP, *The Economic Impacts of the Regional Greenhouse Gas Initiative on Ten Northeast and Mid-Atlantic States* (Nov. 15, 2011), http://www.analysisgroup.com/uploadedFiles/Publishing/Articles/Economic_Impact_RGGI_Report.pdf.

among these neighboring states. A multi-state plan can help to ensure that energy resources in each state operate on a level regulatory playing field.

Regardless of whether Florida plans to submit an individual state plan or participate in a multi-state plan, DEP will be required to submit at least preliminary version of its plan by June 30, 2016. If the state is considering any forms of multi-state cooperation, it must begin discussions with potential state partners as soon as possible in order to be prepared to submit a preliminary plan and memorandum of understanding by EPA's deadline.

Florida should therefore seriously consider regional approaches to implementation. In particular, Florida should consider joining RGGI, in order to take advantage of the existing market and procedural infrastructure. By leveraging these existing resources, Florida can simplify its compliance efforts while reducing overall costs.

Conclusion

Once again, we thank you for the opportunity to submit these comments. For convenience, a summary of our recommendations may be found in Appendix A.

Each of these recommendations seeks to align Florida's existing clean energy policies with actions that will help the State achieve least-cost compliance with the EPA's Clean Power Plan. We are happy to discuss our recommendations and other related options and analysis going forward

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NEXTGEN CLIMATE AMERICA

APPENDIX A: SUMMARY OF COMMENTS AND RECOMMENDATIONS

1. Florida is well positioned to meet carbon pollution reduction requirements.

2. Florida can make these reductions primarily by instituting policies that will promote energy efficiency and renewable energy at levels in line with peer states' programs and commensurate with the available resource. These resources should be leveraged to the maximum extent possible to reduce reliance on the dirtiest sources of electricity, such as coal.

3. Florida should pursue its excellent solar resource by eliminating utility barriers to solar deployment and implementing a legally binding Renewable Portfolio Standard with a robust solar carve-out and other supporting policies.

4. Rather than investing in expensive and unnecessary new power plants, Florida should require utilities to pursue cheaper, cleaner, and more abundant energy efficiency resources, and provide appropriate policy support for them to do so. To support this policy, Florida should consider binding statewide energy efficiency targets, but at minimum it should:
    a. Require both the PSC and Utilities to rely on cost effectiveness screening tests in line with existing best practices, such as the Total Resource Cost or Program Administrator Cost Test, and eliminate arbitrary constraints on investment such as the "two year payback" screen used by some utilities.
    b. Require full investment in least-cost demand side resources before approving applications for new generation resource construction.
    c. Implement utility fixed-cost revenue decoupling, and allow utilities to earn performance incentives for meeting and exceeding efficiency goals.

5. Convene an interagency working group responsible for evaluating Clean Power Plan compliance options and convening a transparent stakeholder engagement process.

6. Consider multiple possible compliance scenarios including:
    a. Methodologies for crediting emissions reductions due to energy efficiency.
    b. Methodologies for auctioning compliance credits created by government actions such as statewide building codes and appliance standards.
    c. Request guidance from EPA on methodology for converting Florida's target to a mass-based standard.
    d. Consider multi-state compliance plans, such as joining the Regional Greenhouse Gas Initiative or creating a similar multi-state program with neighboring states.
    e. Begin active engagement with potential inter-state partners immediately in order to be prepared to meet EPA's June 30, 2016 deadline for submitting preliminary plans and memoranda of understanding among states.

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APPENDIX B: EXAMPLE COMPLIANCE SCENARIOS

Background Figures	lbs/MWh	metric tons/MWh
2012 Covered Source Intensity	1199	0.544
2030 Covered Source Intensity	740	0.336
Required Reduction	459	0.208

2012 Sales	221.0	million MWh
2012 Covered Source Generation	197.7	million MWh
2012 Emissions	107.5	million metric tons CO2

Example 1: Add 15% New RE		
2012 Covered Generation	197.7	million MWh
New RE	33.2	million MWh
Total Qualifying Generation	231	million MWh
Starting Emissions	107.5	mmt
Change in Emissions	0	mmt
Final Emissions	107.5	mmt
Starting Emissions Rate	1199	lbs/MWh
	0.544	mt/MWh
Final Emissions Rate	1027	lbs/MWh
	0.466	mt/MWh
Change in Emissions Rate	-172	lbs/MWh
	-0.078	mt/MWh
Percentage of Required Reductions Achieved	**37.5%**	

Example 2: Replace Dirtiest Power with 15% New RE		
2012 Covered Generation	197.7	million MWh
New RE	33.2	million MWh
Reduced Coal Generation	-33.2	million MWh
Total Qualifying Generation	197.7	million MWh
Starting Emissions	107.5	mmt
Change in Emissions	-33.8	mmt
Final Emissions	73.7	mmt
Starting Emissions Rate	1199	lbs/MWh
	0.544	mt/MWh
Final Emissions Rate	822	lbs/MWh
	0.373	mt/MWh
Change in Emissions Rate	-377	lbs/MWh
	-0.171	mt/MWh
Percentage of Required Reductions Achieved	**82.2%**	

Moderate RE Target	15%	of 2012 Sales
	33.2	million MWh
Moderate EE Target	10%	of 2012 Sales
	22.1	million MWh

Example 3: Offset Load Growth with EE		
2012 Covered Generation	197.7	million MWh
Assumed Covered Generation Growth	22.1	million MWh
Savings Due to EE	22.1	million MWh
Total Qualifying Generation	219.8	million MWh
Starting Emissions	107.5	mmt
Change in Emissions	0	mmt
Final Emissions	107.5	mmt
Starting Emissions Rate	1199	lbs/MWh
	0.544	mt/MWh
Final Emissions Rate	1078	lbs/MWh
	0.489	mt/MWh
Change in Emissions Rate	-121	lbs/MWh
	-0.055	mt/MWh
Percentage of Required Reductions Achieved	**26.3%**	

Example 4: Improve EE & Replace Dirtiest Power with 15% New RE		
2012 Covered Generation	197.7	million MWh
Assumed Covered Generation Growth	22.1	million MWh
Savings Due to EE	-22.1	million MWh
New RE	33.2	million MWh
Reduced Coal Generation	-33.2	million MWh
Total Qualifying Generation	219.8	million MWh
Starting Emissions	107.5	mmt
Change in Emissions	-33.8	mmt
Final Emissions	73.7	mmt
Starting Emissions Rate	1199	lbs/MWh
	0.544	mt/MWh
Final Emissions Rate	739	lbs/MWh
	0.335	mt/MWh
Change in Emissions Rate	-460	lbs/MWh
	-0.209	mt/MWh
Percentage of Required Reductions Achieved	**100.2%**	