

Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

**Re: Docket ID Number EPA-HQ-OAR-2015-0199**

Administrator McCarthy,

The Southern Alliance for Clean Energy (SACE) appreciates the opportunity to submit these comments to the Environmental Protection Agency (EPA) on its proposed Federal Plan and Model Trading Rules – a component of the Clean Power Plan (CPP). SACE is a regional non-profit organization that works across the Southeast to promote responsible energy choices that create global warming solutions and ensure clean, safe and healthy communities.

Our work with utilities and regulators to increase development of clean energy resources and decrease reliance on fossil-fueled power is primarily focused in states where we have members, offices and staff – Florida, Georgia, North Carolina, South Carolina and Tennessee. We work with allies in other Southeastern states to track utility planning engagement opportunities and highlight the true costs of fossil fuel power. Due to this broad geographical presence, SACE works to address a unique need for action on climate policy that utilizes a regional approach and allows us to compare trends, share solutions and identify common interests.

**A. Unique Circumstances in Non-Regulated Southeastern Market**

In the final Clean Power Plan, EPA makes it clear that states have a wide range of options when creating a state plan, including allowing a state to participate in multi-state compliance plans<sup>1</sup> as well as allowing

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<sup>1</sup> Federal Plan Requirements for Greenhouse Gas Emissions From Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations (Federal Plan and Model Rules CPP) at 64838, stating “The EPA is further clarifying that a subset of affected EGUs in a state may participate in a multi-state plan.”

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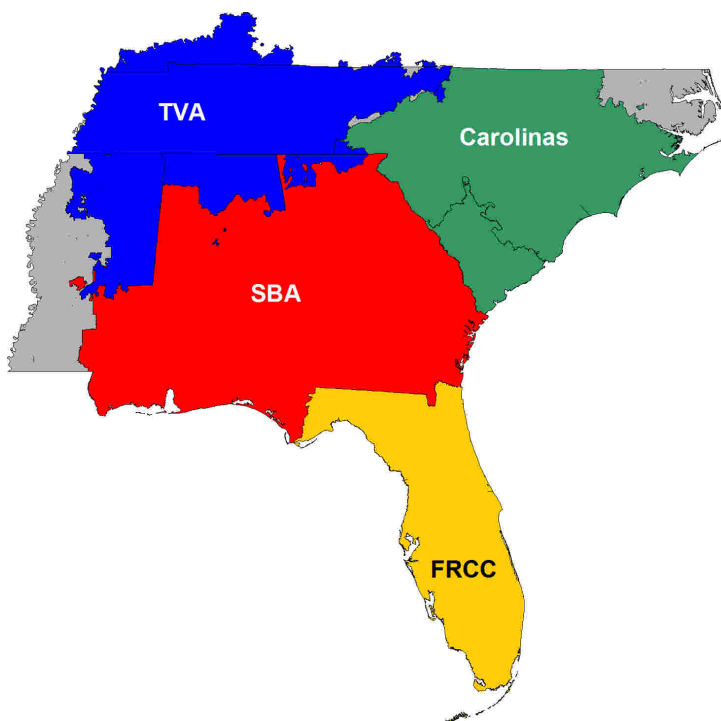
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a state to decide that “different affected EGUs in a state [are] subject to different multi-state plans.”<sup>2</sup> This last approach may have particular relevance in the portion of the Southeast that is not covered by organizations such as the Midcontinent Independent System Operator (MISO) or the PJM interconnection.

As illustrated by the map, power interchanges, planning areas, and balancing authorities in the Southeast are organized into four Energy Regions. In this mapped region, there are roughly 400 utilities that serve customers and are organized into 23 Planning Areas, as reported in the FERC Form 714 Planning Area Reports.<sup>3</sup> Each Planning Area Report covers one or more utilities. For example, Oglethorpe Power includes a number of Georgia cooperatives. Below, we define the four regions by summarizing a list of Planning Areas within each Energy Region:



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<sup>2</sup> Federal Plan and Model Rules CPP at 64840, stating “The EPA is clarifying in the final emission guidelines that a state may participate in more than one multi-state plan. Under this approach, the state would identify in its submittal the subset of affected EGUs in the state that are subject to the multi-state plan or plans. This could involve a subset of affected EGUs that are subject to a multi-state plan, with the remainder of affected EGUs subject to a state’s individual plan. Alternatively, different affected EGUs in a state may be subject to different multi-state plans.”

<sup>3</sup> Federal Energy Regulatory Commission, Form No. 714, Annual Electric Balancing Authority Area and Planning Area Report, available at <http://www.ferc.gov/docs-filing/forms/form-714/data.asp>

## **Southeastern Energy Regions Organized by Planning Area**

1. Tennessee Valley Authority (TVA) - reflecting a single Planning Area
  
2. Carolinas
  - a. Duke Energy Carolinas
  - b. Duke Energy Progress
  - c. South Carolina Electric & Gas
  - d. Santee Cooper (South Carolina Public Service Authority)
  
3. Southern Balancing Area (SBA)
  - a. Alabama Power Company
  - b. Georgia Power Company
  - c. Southern Power Company
  - d. Gulf Power Company
  - e. Municipal Electric Authority of Georgia (not reported to FERC)
  - f. Oglethorpe Power
  - g. Power South Energy Cooperative
  
4. Florida Reliability Coordinating Council (FRCC)
  - a. City of Tallahassee
  - b. Duke Energy Florida
  - c. Florida Municipal Power Agency
  - d. Florida Power & Light (FPL)
  - e. Gainesville Regional Utilities
  - f. JEA
  - g. Lakeland Electric
  - h. Orlando Utilities Commission
  - i. City of St. Cloud
  - j. Seminole Electric Cooperative
  - k. Tampa Electric Company

In addition to the 22 Planning Areas, our review of these FERC data strongly suggests that the Municipal Electric Authority of Georgia (MEAG) and its member utilities are not included in any Planning Area Report made available by FERC.

Every Southeastern state, except South Carolina, is served by utilities in two or more regions, as follows.

- Kentucky: MISO and TVA
- Tennessee: TVA and MISO
- Mississippi: MISO, TVA and SBA
- Alabama: SBA and TVA<sup>4</sup>
- Florida: FRCC and SBA
- Georgia: SBA and TVA<sup>4</sup>
- South Carolina: Carolinas
- North Carolina: Carolinas and PJM

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<sup>4</sup> However, compliance plans in Alabama and Georgia may be simplified since TVA will no longer have operating, covered EGUs in those states by the effective date of the CPP.

### 1. *“Balkanization” of States’ Compliance Plans*

Due to the interlocking, overlapping nature of these jurisdictions, planning areas, and balancing areas, there are at least two potential outcomes in how these energy regions are covered under Clean Power Plan compliance schemes. The first potential outcome is that multiple compliance frameworks will control planning areas in the Southeast. For example, TVA might be required to comply under a mass-based compliance plan in Tennessee and Kentucky, but be controlled by a rate-based compliance plan in Mississippi and Alabama.

A second potential outcome is that every Southeastern state complies with the Clean Power Plan under the same compliance approach as that used by PJM and MISO. In this example, Planning Areas could identify the subset of facilities located in each of their states and propose a multi-state plan encompassing only those EGUs. Thus, the Southeast could be subdivided along the lines illustrated in the map, with each state covered by 1 to 3 multi-state compliance plans and all of these plans using the same compliance mechanism.

In the remaining portion of our comments, we comment on a third potential outcome for the Southeast, but note that EPA’s Final CPP Rule is not clear as to whether such an outcome would be authorized and thus approved. Accordingly, we urge EPA to clarify its intent in the Final CPP Rule when responding to these comments.

The third potential outcome is similar to the second, except that some multi-state compliance plans are based on the mass-based standard, and others on the rate-based standard. We refer to this potential outcome as “balkanization.” Balkanization would exist when certain EGUs in one state are covered under a mass-based compliance mechanism and other EGUs, in the same state, are covered under a rate-based compliance approach. This could result in a situation where each of the four Southeastern utility Energy Regions operates under its own compliance framework encompassing portions of one or more states. This outcome could also allow further differentiation within states. For example, in Florida, FPL might be covered under a rate-based plan, Gulf Power might be covered under a multi-state SBA mass-based plan, and the remaining Florida utilities might be

covered under a separate mass-based plan. Our review of the market structure of Southeastern utilities suggests that there could be 4-8 separate compliance plans (with the opportunity for trading among those adopting like standards).

EPA should consider whether it would be legal for states to choose balkanization. If this flexibility exists in the CPP, it may be particularly attractive in the Southeastern region, where utilities often own and operate generation resources in multiple states, deliver power across state lines, and where states may be more prone to having differing preferences on compliance approaches given the under-construction nuclear units located in some of our Southeastern states.

While we support and acknowledge EPA's authority to offer a wide range of compliance options that will ensure compliance costs are manageable for states, we highlight a few examples of the distinct issues raised by allowing a state to take part in multiple multi-state plans that include both a rate- and mass-based approach. We also suggest possible implications created by balkanization.

## *2. Allocation In Balkanized Compliance Approach*

If EPA agrees that the Final CPP Rule allows states to balkanize into varying types of multi-state plans, EPA's proposed Federal Plan and the Proposed Model Rules should specifically address allowance allocation by states that choose this compliance approach. If a state were to choose to divide its EGUs equally (50% under rate-based -50% under mass-based), allowances should only be distributed based on the emissions by EGUs participating in the mass-based plan. If not, this would obviously result in excessive emissions.

Allowance set-asides should be treated similarly. There may be other ways to provide for an equitable distribution of allowances, so EPA should remain open to alternatives, but it appears to us that a historic benchmark, with permanent allocation, will be needed to ensure that allowances will not be over-allocated when a state chooses to "balkanize" between rate-based and mass-based plans.

For example, it appears that it might not be feasible to allow use of alternative allowance distribution methods contemplated by EPA in the proposed model rules.<sup>5</sup>

- *Updating allowance allocations based on future emission projections:* This alternative method involves reference to statewide emissions, some of which would be sourced to EGUs covered under the rate-based standard, and thus cannot be practically implemented in a state that chooses to balkanize.
- *Allocation of allowances to load-serving entities:* In a balkanized state, such an allocation would be complicated by the fact that many such entities do not own EGUs, so the question would arise as to which load-serving entities are included in the rate-based plan and which are included in the mass-based plan.
- *Auctions to distribute allocations:* As long as the auctions were limited to distribution of allocations associated with the mass-based EGUs, it appears feasible to maintain the integrity of the division of state compliance responsibilities.

We encourage EPA to consider whether balkanization could raise other complications with respect to choice of allocation method.

### *3. Effects on Administrative Burden Under Balkanization Approach*

While at first glance it may seem more burdensome for a state to comply using more than one multi-state plan, and more than one compliance method, this may not actually be the case. Utilities are well versed in complying with federal regulations through multi-state organizations. The planning areas described above are only one example. There are also balancing authorities and regional transmission planning authorities that already address national reliability standards and power marketing requirements. In the Southeast, each of these multi-state organizations tends to be organized around similar geographies, as illustrated by the map above. Even where jurisdiction is at the state level, Southern Company's joint operating agreement reflects a de-facto approach for unified compliance with four states' regulatory requirements for matters such as resource planning, unit dispatch and fuel cost recover, and other similar matters. These existing structures indicate that

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<sup>5</sup> Federal Plan and Model Rules CPP at 65015-65018.

utilities may be better positioned to efficiently comply using existing multi-state geographies and organizations than conforming compliance activities to state boundaries.

Another important question is whether the states should be balkanized or should the utilities be balkanized? While we do not offer a definitive answer to this question in these comments, we encourage EPA to consider that utilities are most familiar with addressing multi-state energy issues through operation of a regional balancing authority. Thus, the administrative burden of state agencies to address cross-state leakage issues, especially when dealing with states operating under differing compliance approaches, would be alleviated by putting the onus on the utilities, as EGU owners, to account for emissions from EGUs that primarily deliver power to states in which the utility owner does not operate.

If EPA determines that its model plan will not allow states to balkanize their EGUs, by assigning them to multiple multi-state compliance plans that use different compliance approaches (i.e. rate-based vs. mass-based), then we encourage EPA to address the issues we have raised above by offering alternative approaches that ensure that leakage will not be exacerbated by the lack of cooperation among states. Specifically, we encourage EPA to allocate allowances based on future emission projections (i.e. updating allowances), but this may not be sufficient to address all of the issues identified above.

#### *4. Leakage Risks for Southeastern State Compliance Plans*

The issue of leakage is unique to the mass-based compliance approach. EPA requires that states that adopt a mass-based compliance plan must address the leakage issue caused by the fact that new natural-gas units are not covered under the Clean Power Plan. The assumption is that these new units, regulated by 111(b) of the Clean Air Act, will replace some part of the coal-fired generation that will either reduce generation or permanently retire as a result of the Clean Power Plan emission goals. Thus, apparent emissions reductions that a state may achieve due to reducing its overall reliance on coal-fired power may be offset by “leakage,” i.e. increased carbon dioxide emissions from new natural gas units. EPA offers several approaches on how to mitigate leakage in a mass-based compliance plan, which appear to be adequate to address the issue within a region that uniformly adopts a mass-based compliance approach.

However, where existing or future power transmission arrangements involve exchanges between states with different compliance plans, there may be significant leakage issues. While EPA requires each state’s compliance plan to demonstrate that it has resolved potential leakage issues, such a showing may be complicated and ultimately insufficient if a state is unsure how neighboring states will regulate carbon emissions.

An illustration of this issue exists in the Southeast, where some EGUs are partially owned by and serve utilities that do not operate in the EGU’s “home” state. While there are several such covered NGCC units, the leakage issue may be most significant at three Southeastern coal plants.



### Southeastern Coal Units with Multiple, Geographically Distinct Owners<sup>6</sup>

Coal Plants	Owners	Plant Location	State Receiving Generation Output
Scherer (Unit 4)	FPL, JEA, Georgia Power	Georgia	Florida
Daniel (Units 1 & 2)	Mississippi Power, Gulf Power	Mississippi	Florida
EC Gaston (Units 1-4)	Alabama Power, Southern Company, Georgia Power	Alabama	Georgia

Feasibly, Georgia and Mississippi could choose to comply using a mass-based approach, while Florida chooses a rate-based compliance plan. Georgia and Mississippi would allocate allowances to the owners of Plant Scherer and Plant Daniel, which include utilities that primarily serve Florida. These Florida utilities, FPL, Gulf Power and JEA, could each increase output of new NGCC units, resulting in additional carbon emissions. Simultaneously, these Florida utilities could cut back generation at their coal units and sell 100% of those allowances to other entities – without having to use any of the allowances to offset the increased emissions at the Florida NGCC units. If the increased generation occurred at a new NGCC plant that met the rate standard under 111(b), then the transaction could result in generation of both allowances as well as ERCs, even though net emissions reductions might be relatively small. The net emission reductions resulting from these types of transactions and dispatch decisions may ultimately result in less emission reductions than intended by the EPA in promulgating the CPP.

One possible solution to this particular leakage problem would be for EPA’s model plan to adopt a practice of assigning compliance allowances for subsequent interim compliance periods based on updated historic generation averages, for example reallocating emissions in the second compliance period, which EPA described as “updating allowances.”<sup>7</sup> Using the updating allowances approach would establish a disincentive to the leakage practice described above. By updating allowances based on new historic generation averages, a utility operating in one state that receives power from

<sup>6</sup> Data taken from EPA’s Air Program Markets Database, 2015.

<sup>7</sup> Federal Plan and Model Rules CPP at 65018, stating “Other potential allocation approaches would change allocations for future compliance periods based on future activity— referred to as “updating” allocations. This proposed rule includes an updating-allocation component, as we are proposing to set aside a portion of the allowances in each state for distribution using an updating output based approach as detailed in section V.D.3 of this preamble.”

an EGU located in another state, does not get the perverse benefit of receiving allowances based on that EGUs older historic generation averages, while the unit is, in reality, operating less frequently due to increased dispatch of new NGCC units owned and operated by the receiving utility. We recognize this may create it's own leakage issue if a state increases generation from regulated EGUs in the first compliance period in order to receive more allowances in the second compliance period. EPA should address this concern in its Final Proposed Federal Plan and Model Rule.

Another possible solution would be to encourage states to balkanize their compliance approach. Continuing the example above, Georgia and Mississippi could address leakage by assigning Scherer Unit 4 and Daniel Units 1 & 2 to a rate-based plan, ideally in the form of a multi-state plan in coordination with Florida's rate-based compliance approach.

### *5. Set-Asides as Leakage Mitigation*

Several utilities across the Southeast have begun to retire older fossil units, including coal and natural gas facilities, and new natural gas facilities are being constructed. New fossil units can be incorporated into the CPP as a "New Unit Complement" in order to address leakage issues under a mass-based compliance plan associated with switching old fossil units (that would be regulated under Clean Air Act §111(d)) to new fossil units (that would be regulated under Clean Air Act §111(b)).<sup>8</sup> Leakage could also be mitigated by allocating allowances to renewable energy or energy efficiency projects as "set-asides." As an additional effort to reduce leakage risks, EPA should allow states to set aside allowances for additional renewable energy generation to replace fossil-fueled facilities that are retired before the end of the CPP compliance period. SACE supports the options outlined by the final CPP to assure the federal model plan accounts for leakage issues.

Setting aside allowances for non-emitting energy resources lowers the carbon emission allowances available to coal-fired power plants or natural gas combined cycle power plants. In effect, non-emitting energy resources (such as renewable energy) would receive allowances that can be used as a financial incentive to spur additional development, lower costs and also put a higher restraint on emitting generation units.

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<sup>8</sup> Federal Plan and Model Rules CPP at 64888.

EPA has proposed set-aside allowances solely for renewable energy, as a potential remedy for leakage issues arising in a mass-based allowance system. EPA recommended a 5% set-aside for renewable energy in a mass-based system. EPA does not provide for set-asides in rate-based systems because leakage issues are not anticipated for that type of system. According to EPA,

[t]he final EGs specified that mass-based plan approaches must address leakage, because the form of the mass goals may ultimately impact the relative incentives to generate and emit at affected EGUs as opposed to shifting generation to new sources, with potential implications for whether the mass goal implements or is consistent with the BSER and overall emissions from the sector. These circumstances are much less likely to be present under a rate-based plan approach, where the form of the goal ensures sufficient incentive to affected existing EGUs to generate and thus avoid leakage, similar to the CO<sub>2</sub> emission performance rates. By requiring mass-based plan components that address leakage, the final EGs ensure that mass goals are equivalent to the CO<sub>2</sub> emission performance rates and are thus an equivalent expression of the BSER.<sup>9</sup>

SACE recommends that EPA retain its recommendation that states choosing a mass-based compliance system should use the practice of setting aside allowances for renewable energy generation in order to resolve potential leakage issues. SACE further recommends that set-aside allowances only be allowed for least-cost compliance options; this recommendation would substantially apply to renewable energy, but also open potential set-aside allowance awards to energy efficiency efforts. New nuclear reactor units and uprates of existing nuclear facilities should not be allowed access to set-aside allowances because they would not qualify as truly least-cost compliance options.<sup>10</sup> Natural gas combined cycle facilities should not receive set-aside allowances either due to the fact that those facilities, while potentially achieving emission reductions in a cost-effective manner, would already qualify to receive dedicated allowances that are inaccessible to renewable energy and energy efficiency resources.

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<sup>9</sup> Federal Plan and Model Rules CPP at 64978.

<sup>10</sup> As an example, FPL's extended power uprate (EPU) at the existing Turkey Point 3 and 4 reactor units had an estimated cost of \$7520/kW. Florida Public Service Commission, Nuclear Cost Recovery Clause, Docket No. 120009-EI, Hearing Transcript, September 11, 2012. Vol. 7, p. 1294. Available at <http://www.psc.state.fl.us/library/FILINGS/12/06307-12/06307-12.pdf>. Proposed new reactors at FPL's Turkey Point site have an estimated levelized cost, at a 90 percent capacity factor, of 16.8 cents a kilowatt-hour. Florida Public Service Commission, Nuclear Cost Recovery Clause, Docket No. 150009-EI, Hearing Transcript, August 19, 2015. Vol.6, pp. 913-914. Available at <http://www.psc.state.fl.us/library/filings/15/05287-15/05287-15.pdf>.

## **B. Southeastern Nuclear Compliance Risks**

### *1. Rate-Based Compliance Implications*

Despite substantial cost overruns and continuously extended construction timelines, utilities in Georgia, South Carolina and Tennessee are currently developing or planning on additional development of new nuclear reactors in the near future.<sup>11</sup> These states have expressed some level of interest in rate-based emission reduction systems, in part because nuclear reactors may be able to more easily benefit by receiving ERCs. Alternatively, many more states have indicated mass-based state compliance plans may be more advantageous due to regulatory familiarity with mass based emission caps for air pollutants and other administrative benefits. Until states submit more detailed documentation to the EPA, it is difficult to determine whether or not a significant number of states will choose to develop rate-based state compliance plans. However, there is a potential risk of a very few number of states choosing to develop rate-based state compliance plans. As such, those states that develop rate-based plans may be a part of a relatively small national ERC trading.

Being a part of a smaller emission trading market may ultimately result in more difficult and costly compliance burdens for states trading in this limited market. For example, if ultimately all nine states in the Southeast choose rate-based compliance plans, but the vast majority of the rest of the country opts for the more familiar mass-based compliance approaches, the Southeast emission market would still represent only around 26% of the nation's emissions (as calculated from the mass-based allowances). If the states currently engaged in new nuclear development – principally Florida, Georgia, Tennessee and South Carolina – were the only states to choose a rate-based compliance plan, then the ERC market would represent approximately 12% of the national market.

The disadvantages of such a lop-sided situation could be further complicated if some rate-based states factored the benefits of a broad national ERC market into their decision, but then no such

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<sup>11</sup> In Tennessee, TVA recently completed the nearly 40-year delayed Watts Bar 2 reactor with commercial operation expected sometime in 2016 and has expressed interest in small modular reactors (SMRs) at the Clinch River site. Both Georgia and South Carolina have two Toshiba-Westinghouse AP1000 reactors under construction at Plant Vogtle and the V.C. Summer nuclear plant, respectively, which have been delayed by at least 39-months to no earlier than June 2019 for the first new unit at each site.

market developed. Such a lop-sided national carbon trading market structure is likely not what EPA intended when creating a flexible, trading-ready carbon pollution regime like the CPP.

In order to protect against these market inequalities, EPA should take a few steps. EPA should be clear when communicating with states in CPP guidance documents and during the state compliance plan submission process about the importance of including conservative estimates for the revenue stream offered by selling ERCs or allowances in a limited-buyer emission market. While we do believe that trading markets will offer cost-effective options to cover a portion of a state's compliance needs, states should include significant adoption of *other* low-cost compliance measures to balance out the risk of fluctuations (especially in early compliance years) of the new emissions trading markets.

SACE further recommends that EPA should model and evaluate the risk and cost associated with an emission trading market with too few participants. Finally, SACE recommends that if EPA finds a considerable risk of one emission reduction plan type (either mass-based or rate-based) creating a functionally inoperable emission market, that EPA disallow such a plan.

## *2. Mass-Based Compliance Implications*

In the event that any of the states with new-build nuclear reactor units choose a mass-based system, and complete construction of new or uprated nuclear units,<sup>12</sup> those units would still not be automatically qualified to receive a portion of the state's set-aside allowances under a mass-based compliance approach. EPA specifically stated that the set-aside allowances, designed to address potential leakage problems, should be awarded to incentivize renewable energy.<sup>13</sup>

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<sup>12</sup> TVA recently completed the nearly 40-year delayed Watts Bar 2 reactor in Tennessee and commercial operation is expected sometime in 2016.

<sup>13</sup> Federal Plan and Model Rules CPP at 65022; "In the context of the proposed federal plan, the EPA is proposing that it would create a unique set-aside for each state covered by a mass-based federal plan. Under a model rule, the state would create this set-aside. The allowances in each set-aside would be reserved from each vintage of the assigned mass goal to that state prior to allocation of allowances to sources. The EPA is proposing that 5 percent of allowances will be reserved from the allocation for each state for the purpose of the set-aside... We are also requesting comment on options for a percentage of allowances to be reserved ranging from 1 to 10 percent of total allowances in each state. The proposed percentage has been determined to provide a meaningful additional incentive for RE activities in each state, while ensuring that the vast majority of allowances are freely allocated to affected EGUs. The EPA made this conclusion based upon determining an appropriate volume of set-aside resources that, at a range of possible allowance prices, are projected to incent the development of additional RE projects. The analysis is provided in the docket as part of the Renewable Energy Set-aside TSD. We note that, under the proposed framework, these allowances would be available to affected

In order for new nuclear or updated existing nuclear reactors to receive set-aside allowances, states would have to intentionally choose a mass-based emission reduction system, and the EPA would have to alter its previously decided methodology for qualifying facilities to allow nuclear units to qualify.

SACE also recommends that EPA finalize and implement a single, mass-based Federal Plan, given the likelihood that a majority of states will move forward with a mass-based compliance approach. All but one of our Southeastern states are currently suing the EPA, claiming the CPP represents an overreach of EPA authority to regulate air pollutants. Notably, North Carolina's current "compliance" strategy is to submit a final plan in 2016 that includes emission reductions achievable by improving coal unit efficiency (known as Building Block 1 in the CPP). In submitting such an obviously inadequate state plan, North Carolina is hoping to accelerate court review of the CPP in hopes it will be invalidated.<sup>14</sup> Although many of these same states have indicated they are working on "back-up plans" if the courts ultimately uphold the CPP, it remains unclear that these last-minute compliance plans will be robust enough to meet EPA's requirements under the CPP. Thus, it is likely at least some Southeastern states will be regulated under Federal CPP Plans.

### *3. Double Counting Risks*

If new nuclear reactors or nuclear updates are awarded direct ERCs or allowances, allocation of either type of credit may present more (nuanced) opportunities for double-counting. As capital-intensive generation, nuclear reactors may have complicated joint-venture capital structures and/or contractual obligations for power delivery across long distances and jurisdictions.

For example, approximately 200 MWs of the generation anticipated from the two under-construction nuclear reactors at Plant Vogtle in Georgia is under a 20-year power purchase agreement (PPA) with one of the Vogtle co-owners in Georgia, MEAG Power, and the recipient is the Jacksonville Electric

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EGUs either in the marketplace or through subsequent distribution of unclaimed set-aside allowances, and thus the provision of these set-asides does not affect the overall stringency of the program."

<sup>14</sup> See North Carolina Proposed SECTION .2700 – STANDARDS OF PERFORMANCE FOR EXISTING ELECTRIC UTILITY GENERATING UNITS UNDER CLEAN AIR ACT SECTION 111(d), available at

Authority (JEA) in Florida.<sup>15</sup> MEAG Power also has a PPA for an additional portion of the anticipated Vogtle generation with PowerSouth, which serves counties in Alabama and Florida.<sup>16</sup>

Similarly, Santee Cooper, co-owner with SCE&G of the two under construction reactors at the V.C. Summer nuclear plant in South Carolina, has a letter of intent with the Orlando Utilities Commission (OUC) for five to ten percent of the anticipated generation.<sup>17</sup> In neighboring Tennessee, generation from TVA's recently completed, but not yet commercially operational, Watts Bar 2 reactor and/or a portion of the approximately 400 MWs in generation from the proposed extended power uprate (EPU) for three nuclear reactors at Browns Ferry in Alabama could be sent out-of-state.

#### **D. Compliance Implications of Interstate Energy Transactions in the Southeast**

The questions raised by the nuclear double-counting issue above highlight a larger concern about crediting either zero-emission resources regulated carbon sources that cross multiple state lines and are ultimately delivered to another state other than where the power is generated. SACE recommends that generation be attributed to purchasing utilities; therefore, power that is generated in one state, but that is delivered to another, would be counted for the purchasing state and not the generating state. However, considering the issues we raised earlier with respect to balkanization, EPA should evaluate this issue both from the perspective of full unit output power delivery and partial delivery of unit output to states with different types of compliance plans.

The Southeast is already purchasing significant quantities of out-of-region wind energy. Existing out-of-region wind energy purchases include Arkansas Electric Cooperative (309 MW)<sup>18</sup>, Alabama

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<sup>15</sup> JEA, Electric Facilities, Nuclear Purchase Agreements. Available at [https://www.jea.com/About/Electric\\_Generation/Electric\\_Facilities/](https://www.jea.com/About/Electric_Generation/Electric_Facilities/), Accessed January 12, 2016. JEA also has an option to purchase nuclear generation from Duke Energy's proposed, though stalled William States Lee III reactors in Cherokee County South Carolina, if the project ever advances.

<sup>16</sup> Business Wire, "Fitch Rates MEAG Power Project J Bonds 'A+' and Project P Bonds 'A-'; Various Outlooks to Negative," August 10, 2015.

Available at <http://www.businesswire.com/news/home/20150810006325/en/Fitch-Rates-MEAG-Power-Project-Bonds-Project>. And PowerSouth Energy Cooperative, "Corporate Overview." Available at [http://www.powersouth.com/about\\_powersouth](http://www.powersouth.com/about_powersouth).

<sup>17</sup> Santee Cooper, "Santee Cooper, OUC enter into letter of intent for share of planned V.C. Summer Station units 2 and 3," March 31, 2011, available at <https://www.santeecooper.com/about-santee-cooper/news-releases/news-items/2011/santee-cooper,-ouc-enter-into-letter-of-intent-for-share-of-planned-v.c.-summer-station-units-2-and-3.aspx>.

<sup>18</sup> Arkansas Electric Cooperative Corporation (2014). Wind Energy, available at <http://www.aecc.com/renewable-resources/wind-energy>.

Power (404 MW)<sup>19</sup>, Georgia Power (250 MW)<sup>20</sup>, Gulf Power (178 MW)<sup>21</sup>, Southwestern Electric Power Company (469 MW)<sup>22</sup> and the Tennessee Valley Authority (1,515 MW).<sup>23</sup> Significant potential exists for new wind energy resources in the Southeast from within a state, within the region (but across state lines), imported from out-of-region using existing transmission, and imported using new high voltage direct current (HVDC) transmission projects.

In 2015, Georgia Power published results from a Request For Information regarding potential purchases of wind energy.<sup>24</sup> Georgia Power received information from 14 different companies, with 40 different projects in 21 different locations representing over 6,500 MW of wind energy capacity. Information was provided on wind energy resources from the Interior region (Texas, Oklahoma, Kansas and Iowa), Great Lakes region (Illinois and Indiana), and Southern region (Alabama, North Carolina and Tennessee). It is reasonable to expect that a number of these projects would be available to others states throughout the Southeast because transmission access may require moving power across multiple states.

Two HVDC transmission projects have been proposed for the Southeast that could deliver substantial quantities of high-capacity wind energy resources into our states. The *Plains and Eastern Clean Line* would connect up to 4,000 megawatts of high-quality wind energy resources from western Oklahoma and Texas to a 500-megawatt converter station in northern Arkansas, as well as a 3,000-megawatt converter station near Memphis, Tennessee.<sup>25</sup> The *Plains and Eastern* project is unique in that the connected generation resources will be limited to wind farms, and the transmission

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<sup>19</sup> Alabama Power (2014). Chisholm View, Buffalo Dunes projects provide cost-effective power, available at <http://www.alabamapower.com/environment/news/chisholm-view-project-provides-low-cost-power.asp>.

<sup>20</sup> Georgia Power (2013, April 22). Georgia Power to acquire 250 megawatts of wind energy from leading developer EDP Renewables, available at <http://online.wsj.com/article/PR-CO-20130422-910916.html>.

<sup>21</sup> Pensacola News Journal (February 15, 2015). Gulf Power to add wind power from Oklahoma, available at <http://www.pnj.com/story/news/2015/02/11/gulf-power-add-wind-power-oklahoma/23239883/>.

<sup>22</sup> SWEPCO (2014). SWEPCO Wind Power Purchase Agreements Total 469 MW, available at <https://www.swepco.com/info/projects/WindPowerPurchase/>.

<sup>23</sup> Tennessee Valley Authority (2013, October). Energy Purchases from Wind Farms, available at [http://www.tva.com/power/wind\\_purchases.htm](http://www.tva.com/power/wind_purchases.htm).

<sup>24</sup> See Georgia Public Service Commission Docket #37854, *Georgia Power Company's Application for the Certification of the Power Purchase Agreements for Wind Resources from the Blue Canyon II and Blue Canyon VI Wind Farms*, available at <http://psc.state.ga.us/factsv2/Docket.aspx?docketNumber=37854>.

<sup>25</sup> Clean Line Energy Partners. Plains & Eastern Clean Line, available at <http://www.plainsandeasterncleanline.com/site/home>.



project is not designed to transmit a variety of generation resources. As such, this HVDC project could provide a direct route for considerable quantities of zero-emission energy resources.

Distinct issues are raised by a second HVDC transmission project that would interconnect with the eastern portion of the Electric Reliability Council of Texas (ERCOT). Pattern Energy's *Southern Cross* HVDC project would allow transmission of 1,500 megawatts of energy from ERCOT to a new, planned converter station in northern Mississippi.<sup>26</sup> Wind energy is expected to be the predominate energy resource on the *Southern Cross* transmission line, but the project would support two-way flows of energy between the Eastern Interconnect and ERCOT, a substantial regional transfer that does not appear to be contemplated in EPA's proposal.

SACE is providing this information regarding existing wind energy imports, potential new wind energy imports, and the uniqueness of two separate HVDC transmission projects in an effort to highlight these renewable energy options for the Southeast for EPA's consideration. As these projects pertain to compliance with the CPP, SACE encourages EPA to ensure that imported resources be attributed properly to EGUs whose compliance obligations help to incentivize the purchase of zero emission resources.

#### **D. Energy Efficiencies Eligibility for Earning Emission Credits (ERCs or Allowances)**

Another zero emission compliance option, energy efficiency (EE), has been proven to be the least-cost energy resource, and any requirements that restrict or limit the inclusion of energy efficiency as a compliance option would unreasonably drive up the overall cost of compliance. Recent research conducted by the American Council for an Energy Efficiency Economy (ACEEE) and the Lawrence Berkeley National Laboratory (LBNL) found that the average cost of energy savings is 2.8 cents per kWh, with a range from 2 to 5 cents per kWh.<sup>27</sup>

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<sup>26</sup> Pattern Energy (August 13, 2010). HVDC Transmission Line Project for Moving ERCOT Wind Into SERC, available at [http://www.ercot.com/content/meetings/rpg/keydocs/2010/0813/Southern\\_Cross\\_RPG\\_Presentation\\_Aug\\_13\\_2010\\_FIN\\_AL\\_TO\\_ERCOT.PDF](http://www.ercot.com/content/meetings/rpg/keydocs/2010/0813/Southern_Cross_RPG_Presentation_Aug_13_2010_FIN_AL_TO_ERCOT.PDF).

<sup>27</sup> Megan A. Billingsley, Ian M. Hoffman, Elizabeth Stuart, Steven R. Schiller, Charles A. Goldman, and Kristina LaCommare, *The Program Administrator Cost of Saved Energy for Utility Customer-Funded Energy Efficiency Programs*, Lawrence Berkeley National Laboratory (2014), <https://emp.lbl.gov/sites/all/files/lbnl-6595e.pdf>. See also

One question that has sparked confusion and concern is whether energy efficiency is eligible for ERCs. It is critical that under any rate-based compliance plan, verified energy savings be eligible for ERCs. This is of particular importance in the Southeast, which is the only region with states that will utilize new nuclear units to comply – a factor that could drive those states to adopt rate-based plans. We recommend that EPA issue guidance to states making it clear that energy savings are eligible for ERCs. In addition, we recommend that EPA provide guidance to states on how to properly credit ERCs for verified energy savings.

With respect to evaluation, measurement and verification (EM&V), we note that SACE is separately signing on to joint comments that address the requirements and considerations associated with the certification of ERCs.<sup>28</sup> In general, we recommend that EPA adopt the recommendations detailed in those comments as it develops EM&V requirements and a process for certifying third-party verification contractors. We also note that a number of state energy offices, led by the Tennessee Department of Environment and Conservation, have received funding to develop procedures for an energy efficiency registry that would facilitate the certification of tradable ERCs. SACE recommends that EPA provide guidance for the inclusion of an energy efficiency registry in state compliance plans.

Another question needing clarification is the types of entities that will be eligible to receive ERCs. Whether a state chooses a mass-based or rate-based compliance plan, or receives a Federal Plan, SACE recommends that EPA allow for ERCs or allowances to be awarded to any entity that meets a state's and EPA's project application requirements, and generates verified energy savings. These entities could include, but should not be limited to: utilities; federal, state and local government; energy services contractors; nonprofit organizations; faith-based organizations; businesses; and individuals. We recommend that EPA issue guidance to states to clarify this issue, and we also

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Maggie Molina, *The Best Value for America's Energy Dollar: A National Review of the Cost of Utility Energy Efficiency Programs*, Washington, DC: ACEEE, 2014, [aceee.org/research-report/u1402](http://aceee.org/research-report/u1402).

<sup>28</sup> See "Joint Energy Efficiency Stakeholder Comments on EM&V in EPA's Proposed Model Trading Rule and Draft EM&V Guidance," submitted in this same EPA Docket ID Number EPA-HQ-OAR-2015-0199 (Joint EM&V Comments).

recommend that EPA create informational guides targeted at various entities that may be interested in proposing energy efficiency projects.

In addition to the types of eligible entities, we recommend that EPA issue factsheets on certain leading types of energy efficiency programs that would likely be approved. This would reduce uncertainty and streamline state compliance planning. In addition, EPA should provide similar information for combined heat and power (CHP) and issue guidance to states confirming that CHP projects are eligible under rate- or mass-based compliance plans. We also recommend that EPA include CHP in the rate- and mass-based Model Rules and Federal Plan.

It is our understanding that EPA has attempted to address concerns about leakage in the draft mass-based federal plan by calling for resource-specific set-asides of allowances for renewable energy, existing combined-cycle natural gas, and the early-action Clean Energy Incentive Program. By providing dedicated incentives for options other than shifting emissions to unaffected new sources, EPA hopes to mitigate potential leakage. However, what is not clear is why EPA did not include any set-asides for EE. If EPA utilizes set-asides to address leakage in the final mass-based Federal Plan, it should include EE.

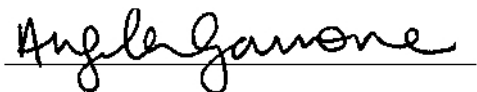
Of particular concern is the fact that EPA has elected not to include EE as a compliance option in the draft rate-based Federal Plan, despite having included EE as an option in the draft rate-based Model Rule. It is not immediately clear why the exclusion of EE would be advantageous, particularly when considering that it is the least-cost energy resource and emits no carbon. SACE recommends that EPA include EE as a compliance option if it implements a final rate-based Federal Plan for a state.

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Due to the specific characteristics of our Southeastern region and energy market, we believe EPA should take a hard look at the issue of balkanization of states and determine if it is allowed under the CPP framework. If so, EPA should address the distinct possibility that utilities may drive states to adopt such a fracture approach and afford for guidance and solutions on how to address leakage. We also believe EPA should allow EE to be eligible for ERCs and develop clear EM&V requirements and a process for certifying third-party verification contractors in accordance with the recommendations contained in the Joint EM&V Comments reference above.

EPA should also be aware that Southeastern states might be crafting compliance approaches that are focused on over-compliance with new nuclear units and therefore dependent on a robust rate-based trading market that may ultimately be a limited market. Lastly, it is important for EPA to consider all facets of the issues created by the buying and selling of energy across state lines and establish that both the benefits and disadvantages of receiving that power (whether it be zero-emission energy resources or carbon-emitting resources) are given to the purchasing state, rather than the state in which that energy is produced. We appreciate your attention to this matter and thank you for your hard work on this historic regulation to address the public health crisis of climate change.

Respectfully submitted,

A handwritten signature in black ink that reads "Angela Garrone". The signature is written in a cursive style and is positioned above a horizontal line.

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