

Orlando Utilities Commission (OUC) Response to the Florida Public Service Commission's July 11, 2014 U.S. Environmental Protection Agency Carbon Rules - FPSC Staff Data Request #1

October 15, 2014 Updates to the Responses Originally Submitted August 8, 2014

FPSC Staff Data Request #1

Orlando Utilities Commission (OUC) previously submitted responses to the Florida Public Service Commission's July 11, 2014 Staff Data Request # 1. The following presents the original responses, as well as updates to responses based on currently available information. For responses that are being updated, the updated response is clearly identified below the original response. Updated responses have been provided for questions 1, 2, 4 - 6, 13 - 18, 20, 22, 23, 26 - 28, 30 and 31.

Please respond to the following questions by close of business on **August 8, 2014**.

- 1. Please provide comments you have on legal aspects of the Clean Power Plan or proposed standards of performance for Modified and Reconstructed Sources that you believe are important for the Commission to review.**

OUC Response:

Orlando Utilities Commission (OUC) is reviewing legal aspects of the Clean Power Plan and proposed standards of performance for Modified and Reconstructed Sources and expects to be able to respond with comments in this regard by October 16, 2014. OUC will complete our review of the EPA Proposed Clean Power Plan and provide a copy of our comments to the Florida Public Service Commission as a part of our timely submittal during the EPA 120 day comment period.

Updated OUC Response:

EPA has used a four building block approach for all states in a manner that sets mandatory requirements that are far more stringent than could be imposed if EPA followed the Clean Air Act (CAA) statute, which requires source specific standards confined to fossil fuel sources. By going "outside the fence line" in setting standards, EPA has developed standards that are more stringent than the New Source Performance Standards, which establishes a policy with no basis in the statute or regulatory guidance. EPA claims that the four building blocks are mere guidelines for the states and that states are afforded maximum flexibility in choosing how to meet the standards. However, the "guidelines" proposed by EPA are mandatory and stringent.

CAA Section 111(d) allows the states to take into account specific state factors to require less stringent emission limiting standards for certain plants based on the life of the unit and other factors. EPA regulations outline other flexibilities to be afforded the states, including costs, physical limitations or "other" factors. However, the flexibilities that EPA insists the states have under the proposed rule are illusory given the stringency of the standards.

The four building blocks that serve as the basis of the Florida mandatory standards assure that the state of Florida would have to prematurely shut down low cost coal plants, many with long remaining years of operating lives and unpaid debt, which will cause stranded investment costs to consumers. The replacement of generating units is a capital intensive process.

- 2. Please provide comments you have on technical aspects of the Clean Power Plan or proposed standards of performance for Modified and Reconstructed Sources that you believe are important for the Commission to review.**

OUC Response:

Orlando Utilities Commission (OUC) is reviewing technical aspects of the Clean Power Plan and proposed standards of performance for Modified and Reconstructed Sources and expects to be able to respond with comments in this regard by October 16, 2014. OUC will complete our review of the EPA Proposed Clean Power Plan and provide a copy of our comments to the Florida Public Service Commission as a part of our timely submittal during the EPA 120 day comment period.

Updated OUC Response:

Other updated responses herein will provide more detail to OUC's technical concerns, but the following highlight these concerns:

- i. The Stanton Energy Center (SEC) is permitted as a zero liquid discharge (ZLD) site. All wastewater associated with site activity is utilized on site. A majority of this water use is accomplished through evaporation by SEC coal Units 1 and 2. The retirement of, or reduction in use of, either SEC Units 1 or 2 would prevent OUC from meeting its ZLD requirements without significant investment towards the installation of a water treatment facility.
 - ii. Additionally, the majority of cooling water for the facility is provided by the County reclaimed water facility. The retirement of, or reduction in use of, either SEC Units 1 or 2 would eliminate a reuse source of this water, resulting in an increase in the amount of wastewater discharge to surface waters of Florida from the County reclaimed water facility.
 - iii. A 90% reduction of coal within Florida would require a shift to the use of natural gas as primary fuel source. This would cause a significant shift away from fuel diversity for the state and OUC. This diversity provides rate stability for all ratepayers, especially at times of volatility in the natural gas market.
- 3. Identify specific technical aspects or factors that should be taken into consideration for your utility, including the baseline CO₂ rate and emissions levels, used in the development of Florida's interim and final targets in the Clean Power Plan that should be addressed.**

OUC Response:

Orlando Utilities Commission (OUC) has undertaken or implemented numerous activities after 2005 which resulted in a lower CO₂ footprint. These activities include, but are not limited to, development of the Stanton Solar Farm, increased utilization of landfill gas (LFG), commercial operation of Stanton Energy Center Unit B (a 1x1 combined cycle generating unit), efficiency and operational improvements to Stanton Energy Center Units 1 and 2 (coal-fired units which, subsequent to 2005, were modified to operate more efficiently, be able to operate at lower load levels, utilize natural gas for unit igniters, and operate on a blend of natural gas, LFG, and pulverized coal). In addition to improvements on the supply-side, OUC has continued to offer demand-side management (DSM) and conservation programs to its customers, with demand and energy reductions exceeding the annual goals established by the Florida Public Service Commission during this timeframe. OUC's activities related to both supply-side and demand-side measures should be recognized when establishing emissions targets under the Clean Power Plan.

LFG (as stated earlier, OUC utilizes landfill gas for power production), a waste gas that would be vented and combusted under the requirements of 111 (d), instead displaces coal in the production of

energy. At this point in time the rule identifies that the landfill gas is regulated under the 111(d) section and the use in energy production is not considered under the Clean Power Plan

- 4. Please identify assumptions used by the EPA about your utility's generation fleet characteristics such as ramp rates, dispatch levels, maximum and minimum load conditions, start up times or cycling frequency that do not reflect your utility generation fleet's actual performance and capabilities.**

OUC Response:

Orlando Utilities Commission (OUC) has started and is in the early stages of its review of the EPA's data. OUC will complete our review of the EPA Proposed Clean Power Plan and provide a copy of our comments to the Florida Public Service Commission as a part of our timely submittal during the EPA 120 day comment period.

Updated OUC Response:

EPA used nameplate capacity of Stanton B in their calculations, resulting in an overestimation of the amount of power generated, especially during the summer months. The EPA assumed capacity of 334 MW, while actual reported data for annual average Stanton B capacity is 298 MW.

Reduction in coal unit capacity has significant impact on operations of the natural gas combined cycle units at the Stanton Energy Center. EPA's assumptions fail to take into account that approximately 900 MW of natural gas combined cycle generation at the Stanton Energy Center is dependent on the operation of Stanton coal-fired generation for the treatment of wastewater produced at these combined cycle units.

- 5. Please explain whether Florida's interim and final targets in the Clean Power Plan and associated schedule of compliance are technically achievable.**

OUC Response:

Orlando Utilities Commission (OUC) is in the process of evaluating the Clean Power Plan and associated schedule of compliance, but does not believe the targets are technically achievable. Please also refer to Appendix 1 to this response, which presents comments made by the Florida Municipal Electric Association (of which OUC is a member).

Updated OUC Response:

OUC is working with the Florida Coordinating Group (FCG) to identify state wide challenges for Florida as a whole. Preliminary analyses demonstrate that it would not be technically achievable for OUC to meet the interim 2020 goal. Under one potential scenario that was evaluated by OUC, to meet this 2020 goal, the coal units Stanton 1 and McIntosh 3 would need to be retired, and Stanton 2 would have to run at a significantly reduced capacity factor. This lost capacity must be replaced by a new natural gas combined cycle (NGCC) plant. The following issues demonstrate how this would not be achievable:

- i. The typical permitting and construction timeframe for a NGCC is 4 years. Given that most utilities in every state would be constructing such a facility to meet these EPA regulations, it is estimated that the demand for plant permitting, materials for construction and skilled labor could stretch this project to 6 to 8 years.
- ii. OUC must maintain the Stanton Energy Center (SEC) as a zero liquid discharge (ZLD) site. Since the SEC would no longer have coal Unit 1 and the use of coal Unit 2 would be

significantly reduced, the use of the onsite water will be drastically reduced. OUC would have to construct a water treatment facility to process the water to a quality meeting applicable effluent discharge limits before it would be allowed to discharge off the site. The time period to permit, design, and construct such a facility could stretch this process out several years.

- 6. Please provide utility-specific cost estimate information associated with complying with the proposed Clean Power Plan that you have at this time. These costs should be expressed in 2014 net present value. Please provide all the assumptions you used. If you are currently developing cost estimates that are not available at this time, please provide an estimated date when this information will be available.**

OUC Response:

Orlando Utilities Commission (OUC) is in the process of developing these calculations and does not have an estimated date for when the information will be available.

Updated OUC Response:

OUC has developed preliminary cost estimates to achieve the structure needs outlined in response to Question No. 5. The estimated costs to meet the 2020 interim goal include:

- i. While the exact size and configuration of replacement capacity has not yet been determined, as an illustration of the potential capital cost a new 400 MW natural gas combined cycle would cost approximately \$465 million.
- ii. The estimated costs for water mitigation would be approximately \$50 million.
- iii. There would also be additional costs for the transportation of and purchase of natural gas.
- iv. The estimated customer rate impact for these additional costs would be in the 40% to 45% range.

- 7. Do Florida's interim and final targets in the Clean Power Plan account for fuel diversity risks that may arise, given Florida's unique characteristics? Please explain your response.**

OUC Response:

Orlando Utilities Commission (OUC) does not believe the targets in the Clean Power Plan account for fuel diversity risks that may arise, given Florida's unique characteristics. Florida's fuel diversity allowed the State to remain with power during recent significant weather events (notable the 2004 – 2005 hurricane seasons).

- 8. Describe early actions taken by your utility after 2005 that have reduced CO₂ emissions from your generating fleet. Explain whether or how you believe the EPA gave credit for these actions by your utility in developing Florida's interim and final targets in the Clean Power Plan.**

OUC Response:

Orlando Utilities Commission (OUC) has undertaken or implemented numerous activities after 2005 which resulted in a lower CO₂ footprint. These activities include, but are not limited to, development of the Stanton Solar Farm, increased utilization of landfill gas (LFG), commercial operation of Stanton Energy Center Unit B (a 1x1 combined cycle generating unit), efficiency and operational improvements to Stanton Energy Center Units 1 and 2 (coal-fired units which, subsequent to 2005, were modified to operate more efficiently, be able to operate at lower load levels, utilize natural gas for unit igniters, and operate on a blend of natural gas, LFG, and pulverized coal). OUC's activities in this regard should be recognized when establishing emissions targets under the Clean Power Plan.

OUC believes credit was given for a period of time where economical dispatch of natural gas was the choice where natural gas was available. Requiring utilization of OUC's combined cycle natural gas units on the order of 70 percent capacity factor, which may be necessary as a step towards compliance with the proposed rules, does not recognize the importance of Florida's reliance on fuel diversity.

- 9. Describe the actions your utility has undertaken after 2005 for other EPA air or water regulations (such as, but not limited to, regional haze, mercury air and toxics standards, and cooling water intake) that have reduced your electric generating units' (EGU's) operating efficiencies. Please explain how these actions may have affected your utility's ability to meet EPA's proposed interim and final CO₂ targets for Florida.**

OUC Response:

Orlando Utilities Commission (OUC) has undertaken dry sorbent injection (DSI) for acid gas mitigation, activated carbon injection (ACI) for control of mercury emissions, and scrubber upgrades for control of sulfur dioxide emissions. These types of projects result in additional costs (capital and operating expenses) and require additional electrical usage to operate (auxiliary loads), which combine to have an impact on the cost of operations.

- 10. Please describe what, if any, lessons learned from the U.S. Acid Rain Program, including SO₂ allowance trading, that could be informative to the Commission.**

OUC Response:

Orlando Utilities Commission (OUC) does not have information related to lessons learned in this regard.

- 11. If the EPA's Clean Power Plan target calculation methodology was applied to each generating utility in Florida, what would be your utility's: (a) 2012 baseline emission rate (in lbs. per MWh) and mass level (in thousands of tons), (b) your 2020-2029 interim rate and mass levels and (c) your 2030 emission rate and mass level?**

OUC Response:

Please see the table below, which presents the requested information. Actual data for 2012 reflects economics associated with natural gas prices near historic lows relative to coal prices, which resulted in increased utilization of natural gas for economic considerations, and also reflects an extended outage of the St. Lucie nuclear units. Projected information on the assumption that the current operating environment, fuel types and quality, and equipment configuration and condition remains unchanged through the 2030 period. Changes to any of the aforementioned factors moving forward may impact future unit, and therefore generation fleet, emissions rates. Also, note that projected data for 2020 through 2030 represents system emissions related to energy required to serve OUC, St. Cloud, City of Vero Beach, City of Bartow, City of Lake Worth, Winter Park, Bartow, and Florida Power & Light load obligations as discussed in Section 2 of OUC's 2014 TYSP, and does not reflect any additional economy energy sales or economy energy purchases. Operation of Stanton Energy Center Units 1 and 2 on natural gas is not reflected. Projected data does not reflect any interaction with the Florida Municipal Power Pool.

Calendar Year	CO ₂ Emissions	
	Short Tons	Lb/MWh
2012	6,416,218	1,540
2020	5,601,485	1,610
2021	5,728,306	1,621
2022	5,827,169	1,622
2023	5,968,676	1,637
2024	6,152,207	1,659
2025	6,234,779	1,652
2026	6,320,864	1,647
2027	6,392,227	1,637
2028	6,463,667	1,628
2029	6,540,714	1,621
2030	6,614,216	1,612

12. How could the Clean Power Plan affect your obligation to purchase renewable and cogeneration energy and capacity, or non-Florida sited generation pursuant to the applicable state and federal requirements?

OUC Response:

The Clean Power Plan would affect baseload generating units. To date, the benefits of renewables have not risen to the ability to back out baseload requirements for Orlando Utilities Commission.

13. Please explain whether the performance standards for Modified and Reconstructed stationary sources are technically feasible for your utility’s EGUs.

OUC Response:

Orlando Utilities Commission (OUC) is currently in the process of evaluating the technical feasibility.

Updated OUC Response:

OUC has no plans for modifications at its generating facilities. OUC’s coal units 1 and 2 could not achieve the 1,900 lbs. CO₂/MWh standard. OUC expects that both Stanton Energy Center Units A and B (both combined cycles operating on natural gas) would operate with emissions of CO₂ less than 1,000 pounds per MWh.

14. Please describe anticipated modifications or changes to your EGUs to meet Florida’s emission rate interim and final targets proposed in the Clean Power Plan that would trigger the application of the proposed carbon standards for modified and reconstructed EGUs.

OUC Response:

Orlando Utilities Commission (OUC) has not yet performed the analyses necessary to address this request.

Updated OUC Response:

OUC currently has no plans to make modifications or changes to existing EGUs that would trigger the application of the proposed carbon standards for modified and reconstructed EGUs.

Building Block 1: Heat Rate Improvement of 6 Percent for Coal-Fired Facilities.

15. What is the technical feasibility of improving heat rates for each of your utility's coal facilities by 6 percent?

OUC Response:

Orlando Utilities Commission (OUC) has not yet performed the analyses necessary to address this request. It should be noted that OUC has recently implemented efficiency improvements for its coal units, and also taken other measures to reduce consumption of coal (i.e. natural gas igniters that allow for operation on a blend of coal and natural gas, improving the ability of the units to operate at low load levels, and increasing the amount of LFG burned).

Updated OUC Response:

Based on preliminary analysis and review of a current turbine upgrade on Stanton Energy Center (SEC) coal unit 2, OUC does not believe a 6% heat rate improvement is technically feasible. OUC completed a turbine efficiency upgrade on SEC Unit 2 in 2013. This type of improvement provides the largest heat rate improvement for a coal plant. The achieved heat rate improvement was 5.8%. The ongoing benefit of this 5.8% improvement is predicated on the continued historical capacity factor of Unit 2. Any reduction in Unit 2 capacity factor, as discussed in response to Question No. 5, would negate the current heat rate benefit. This improvement has also been offset by other air quality equipment installed on Unit 2. The additions of the dry sorbent injection system and the SO₂ scrubber upgrade increase the parasitic load which reduces the overall efficiency of Unit 2.

16. Please describe efficiency improvements at your utility's coal-fired facilities, implemented after 2005, that would hinder your ability to achieve an additional heat rate improvement of 6 percent.

OUC Response:

Orlando Utilities Commission (OUC) has not yet performed the analyses necessary to address this request. It should be noted that OUC has recently implemented efficiency improvements (including turbine generator upgrades and air heater upgrades) for its coal units, which may hinder achieving an additional 6 percent improvement in efficiency. OUC has also taken other measures to reduce consumption of coal (i.e. natural gas igniters that allow for operation on a blend of coal and natural gas, improving the ability of the units to operate at low load levels, and increasing the amount of LFG burned).

Updated OUC Response:

As discussed in response to Question No. 15, OUC implemented a turbine upgrade on its Stanton Energy Center coal Unit 2 in 2013. Just maintaining this level is in question given further operating constraints projected for this unit under the EPA's Clean Power Plan.

17. Please provide utility-specific cost estimate information associated with historical and/or current heat rate improvement efforts since 2005 at your utility's coal-fired facilities that you have at this time.

OUC Response:

Orlando Utilities Commission (OUC) does not have the requested information available at this time.

Updated OUC Response:

In reference to the Stanton Energy Center Unit 2 turbine upgrade discussed in responses to questions 15 and 16, OUC spent \$14 million on this project. OUC also spent \$6 million on Unit 2's distributed

control system providing additional efficiency gains. Other plant improvements including the gas igniters and air heaters cost OUC \$5.8 million and \$4.8 million, respectively.

Building Block 2: Increased Dispatch of Natural Gas Combined Cycle facilities.

- 18. Is a re-dispatch of your utility’s existing, or planned, natural gas combined cycle facilities that displaces approximately 90 percent of your existing coal-fired facilities technically feasible? Please explain your response.**

OUC Response:

Orlando Utilities Commission (OUC) has not yet performed the analyses necessary to address this request. However, OUC does not believe that it is technically feasible to displace 90 percent of the generation from OUC’s existing coal units using existing natural gas combined cycle generating units (i.e. Stanton Energy Center Units A and B), particularly in light of the upcoming expiration of the Stanton A power purchase agreement (scheduled to expire October 1, 2023). If OUC were to achieve the 90 percent displacement through a combination of existing and new natural gas combined cycle units, OUC would need to ensure there is sufficient land, natural gas transportation capacity, electrical transmissions capacity, rights-of-way, water, and other facilities and commodities associated with construction of new generating units.

Updated OUC Response:

OUC cannot displace 90 percent of the generation from OUC’s existing coal units using existing natural gas combined cycle generating units (i.e. Stanton Energy Center Units A and B). If OUC were to achieve the 90 percent displacement through a combination of existing and new natural gas combined cycle units, OUC would need to ensure there is sufficient land, natural gas transportation capacity, electrical transmission capacity, rights-of-way, water, and other facilities and commodities associated with construction of new generating units.

- 19. Is it technically feasible under manufacturer’s design specifications to re-dispatch your utility’s existing natural gas combined cycle facilities to maintain, on average, a 70 percent capacity factor? Please explain your response.**

OUC Response:

Dispatch of OUC’s existing natural gas combined cycle units (Stanton Energy Center Units A and B) may be technically feasible, but would likely result in increased operations costs and capital expenditures to maintain reliable, efficient generation as compared to how the units are currently operated.

- 20. Identify grid reliability concerns associated with a re-dispatch of your existing natural gas combined cycle facilities to maintain, on average, a 70 percent capacity factor.**

OUC Response:

Orlando Utilities Commission (OUC) has not yet performed the analyses necessary to address this request. However, as noted in previous responses, overall grid reliability will be diminished by taking measures that reduce fuel diversity due to Florida’s unique characteristics.

Updated OUC Response:

OUC has not yet performed the analyses necessary to address this request. OUC understands that other utilities have raised some concerns related to grid reliability which may also be applicable to OUC.

- 21. Describe other impediments to re-dispatching your utility’s existing natural gas combined cycle facilities to maintain, on average, a 70 percent capacity factor.**

OUC Response:

Other impediments may include, but are not limited to, increased maintenance costs and capital expenditures for Stanton Energy Center Units A and B, challenges in securing sufficient natural gas transportation capacity and volumes, and the impact on customers’ rates of generating units out of economic order (i.e. dispatching natural gas ahead of coal even though coal generation is less expensive).

Building Block 3: Renewable Energy and Nuclear Generation.

- 22. Are EPA’s assumed growth projections for the increase in renewable energy generation within Florida technically feasible? Please explain your response.**

OUC Response:

Orlando Utilities Commission (OUC) has not yet performed the analyses necessary to address this request. However, it should be noted that if solar is to be the majority of renewable energy to meet the proposed goal of approximately 9 percent of energy sales, securing sufficient acreage to handle the magnitude of solar panels will be a challenge.

Updated OUC Response:

It may be technically feasible to reach EPA’s renewable projections, but the economics would not support that level. OUC has used landfill gas for several years and will continue to add as it is available, but there is a limited supply. The uncertainty of biomass being considered a renewable by the EPA removes this as an option. Wind is not a viable option for the state of Florida. These factors demonstrate that a majority of the renewable energy must come from solar. The technical challenge is the amount of land and/or roof tops required to provide this level of solar. Considering the need to maintain traditional generation to meet customers’ peak demands and inherent solar variability, and the costs discussed in response to Question No. 6, the economics do not support this level of renewable energy generation.

- 23. Are there grid reliability concerns associated within Florida with EPA’s assumed increase in renewable energy generation? Please explain your response.**

OUC Response:

Orlando Utilities Commission (OUC) has not yet performed the analyses necessary to address this request. However, it should be noted that if a significant portion of this growth in renewable energy is from demand side applications, the ability to effectively handle distribution system voltage balancing would be a concern.

Updated OUC Response:

Based on the experiences of utilities in California and Hawaii, grid reliability would be a concern given the level of intermittent solar that would be required to meet the renewable energy goal. The fluctuation of voltage on high solar penetration areas would be difficult to balance. Balancing solar over transmission systems would also be one complexity FRCC would need to consider as retiring coal plants significantly shift demands on systems.

- 24. Describe other impediments within Florida to EPA’s assumed increase in renewable energy generation.**

OUC Response:

Other impediments may include, but are not limited to, the concern of increased costs to OUC's ratepayers as a result of the additional expense of a non-dispatchable generation source with the need to maintain dispatchable generation sources (assuming solar is to be the majority of renewable energy to meet this proposed goal of approximately 9 percent of energy sales).

- 25. For nuclear owning utilities, please explain whether EPA's assumed six percent at-risk nuclear capacity and generation reflects your utility's circumstances.**

OUC Response:

Orlando Utilities Commission (OUC) does not believe its circumstances are reflected. OUC's loss of its partial ownership in Crystal River was before the 2012 time period. The additional partial ownership OUC has in Florida Power & Light's St. Lucie plants should not be considered at at-risk as they are newer plants.

Building Block 4: Energy Efficiency.

- 26. Is EPA's assumed 9.98 percent of avoided electricity sales from energy efficiency technically feasible for your utility? Please explain your response.**

OUC Response:

Please refer to the information submitted in response to Question No. 5 herein.

Updated OUC Response:

While this level of energy efficiency may be technically feasible, OUC does not believe it is likely to be reached. OUC has provided DSM programs for years and has never reached this level. In the past three years OUC has increased its efforts to encourage customers to participate in conservation programs but has realized less than 1 percent reductions in energy. OUC's service area also provides a challenge given that 60% of our residential customers live in rental units. These customers have no incentive to invest in the properties they don't own and the owners have no incentive to invest because they don't benefit from the reduced electric bill.

- 27. Is EPA's assumed ramp-up rate (i.e., the yearly incremental increase) of avoided energy sales resulting from energy efficiency technically feasible? Please explain your response.**

OUC Response:

Orlando Utilities Commission (OUC) has not yet performed the analyses necessary to address this request. However, it should be noted that the technical feasibility will depend on what can be counted, and how it can be counted, as energy efficiency.

Updated OUC Response:

See response to Question No. 26.

- 28. Describe grid reliability concerns within Florida associated with EPA's assumed avoided electricity sales from energy efficiency.**

OUC Response:

Orlando Utilities Commission (OUC) has not yet performed the analyses necessary to address this request. However, at this time OUC is not aware of any such grid reliability concerns.

Updated OUC Response:

OUC is not currently aware of any grid reliability concerns.

29. Describe other impediments within Florida to achieving EPA's assumed avoided electricity sales from energy efficiency. Please explain your response.

OUC Response:

Beyond confirming the technical feasibility and understanding the impacts to OUC's ratepayers, and any grid reliability concerns, OUC is not aware of additional impediments in this regard.

Legal Questions

30. Do you foresee the Clean Power Plan affecting the Commission's regulatory authority in any manner? We are particularly interested in the impacts on need determinations, transmission line siting, FEECA goal-setting, general authority under the Grid Bill (i.e., 366.05, Florida Statutes), and cogeneration pricing and contract provisions.

OUC Response:

Orlando Utilities Commission (OUC) is reviewing legal aspects of the Clean Power Plan and expects to be able to respond with comments in this regard by October 16, 2014. OUC will complete our review of the EPA Proposed Clean Power Plan and provide a copy of our comments to the Florida Public Service Commission as a part of our timely submittal during the EPA 120 day comment period.

Updated OUC Response:

Without the state implementation plan developed, it would be difficult to identify any specific impacts of the PSC's regulatory authority. If the Clean Power Plan is adopted as currently stated, the PSC would definitely have a significant increase in volume for need determinations, transmission line siting and cogeneration pricing and contract provisions. The PSC would also have a need to modify the process for FEECA goal-setting given that DSM and conservation criteria may have significantly changed.

Additionally, the Clean Power Plan is noted as being federally enforced, shifting authority away from the State of Florida and the PSC. This erosion of state authority could prove detrimental to the best interests of Florida residents.

31. Please comment on any other legal aspects of EPA's authority to implement this rule that you believe should be considered by the Commission.

OUC Response:

Orlando Utilities Commission (OUC) is reviewing legal aspects of the Clean Power Plan and expects to be able to respond with comments in this regard by October 16, 2014. OUC will complete our review of the EPA Proposed Clean Power Plan and provide a copy of our comments to the Florida Public Service Commission as a part of our timely submittal during the EPA 120 day comment period.

Updated OUC Response:

No additional comments beyond the updated response to Question No.1.

Appendix #1

Comments of the Florida Municipal Electric Association (FMEA)

EPA's Proposed ESPS Rule

Atlanta GA

July 29, 2014

I'm Robert Kappelmann, here on behalf of the Florida Municipal Electric Association (FMEA). FMEA represents 34 community-owned electric utilities serving three million Floridians. Our utilities are almost entirely dependent on fossil fuel-based generation. It's critically important to our customers and our communities that we are able to continue to deliver reasonably priced and reliable electric power to their homes and businesses. The flexibility provided with the 4 building block approach is not sufficient to meet the mandatory emission limiting goals in a cost-effective manner that will assure electric reliability.

We have grave concerns that EPA has actually created de-facto "one size fits all" guidelines for the states that go far beyond traditional source-specific standards. The statute dictates that Section 111 (d) emissions standards be designed to be cost-effective and achievable at each specific source or electric generating unit (EGU) and not based on statewide emission limiting goals.

The majority of FMEA's coal-fired electric generating units are the direct result of Federal legislation. In response to the Arab oil embargo in the early 1970s, Congress passed the Electric Power Industrial Fuel Use Act of 1977, which disallowed the use of natural gas and oil for any new electric generating units. Many of our utilities were forced by the Act to cancel planned gas-fired units and replace them with coal-fired units. Fortunately for our customers these units have provided low cost reliable energy for Floridians.

FMEA members built over 2400 MW of coal-fired generation in response to the limitations of the Fuel Use Act. These coal units meet (isn't it meet, aren't they still?) EPA's best available control technology requirements, which allowed Florida to maintain compliance with National Ambient Air Quality Standards. FMEA member utilities invested billions of dollars in new coal-fired generation because we had no other choice for new generation. It is important to understand that many of our utilities still carry considerable debt on these coal-fired units. Creating standards that force them out of service prematurely will leave our ratepayers with 100s of \$ millions of dollars in stranded costs.

Each Florida electric utility generating system is unique, just as each state's electric generating system is unique. We believe that ESPS should allow each state to not only have a greater role in deciding how much emission reduction is technically possible, but also to be able to exempt certain facilities on a case by case basis as provided by the statute.

The proposed ESPS emission reduction goals depend on 4 compliance building blocks (BBs) that were developed considering national and regional assumptions and costs that may not translate to a state and its utilities. This is especially the case regarding EPA's assumed 6% efficiency improvements (BB #1) for coal units, since Florida's relatively new coal-fired generating fleet already employs most of the available cost effective heat rate improvements.

Florida's ESPS depends primarily on load shifting from coal to gas-fired generation (BB#2) for compliance and most of the reductions are front-loaded. The shift to natural gas would result in the premature closing of many of our coal-fired units. Recently, FMEA utilities added \$2 billion of "state of the art" air pollution control systems to meet the emission limits of EPA's Interstate Transport and utility MATS rules. EPA's proposal does not take into account the additional \$100s of millions in stranded costs for those units that will fall on our ratepayers. It is ironic that the Federal government, which dictated that our utilities build coal-fired generating units is now proposing a regulation that will assure their premature shutdown.

EPA's compliance BB#3 assumes that about 10% of Florida's generation could come from renewable energy by 2030. However, the most cost effective source of renewable energy, wind power, is not a feasible or cost effective resource in Florida.

EPA's compliance BB#4 assumes that demand side management can reduce electric demand by 10% by 2030. Florida continues to experience significant population growth. EPA's ESPS does not take this into account for the state or a locality. This rule subjects states with high economic or population growth to disparate treatment.

Unfortunately, the ESPS tends to punish early CO₂ reductions by including them in the calculation of the state emission limiting goals. EPA should allow states to adjust emission reduction goals to reflect early action reductions made prior to the effective baseline of 2012.

We have numerous concerns about EPA's decision to expand the traditional BSER boundary beyond not only the electric generating units specifically cited in the Clean Air Act but also to generating sources and segments of the economy not specifically regulated under the Clean Air Act. Our preliminary analysis indicates that EPA has greatly overestimated the monetized benefits for the ESPS and underestimated the cost to the public. Also, EPA failed to incorporate fully the impact of IPCC AR 5 findings of reduced equilibrium climate sensitivity and moderated predictions of severe weather events. These concerns will be addressed in our formal comments on the proposed ESPS.