

TESTIMONY OF SEMINOLE ELECTRIC COOPERATIVE, INC.

PRESENTED BY LISA D. JOHNSON

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON ENERGY AND POWER
HEARING ON THE "RATEPAYER PROTECTION ACT"

APRIL 14TH, 2015

Table of Contents

1. EXECUTIVE SUMMARY OF WRITTEN TESTIMONY	3
2. SEMINOLE'S COOPERATIVE SYSTEM	8
a. Introduction	8
b. Seminole Generating Station (SGS)	11
i. Significant Investments in Environmental Controls	13
ii. Outstanding Debt Owed	15
iii. Remaining Useful Life	16
c. Midulla Generating Station (MGS)	17
d. Power Purchase Agreements / Renewable Energy Portfolio ...	18
e. Seminole's Transmission System.....	19
3. THE "RATEPAYER PROTECTION ACT" WOULD PROTECT OUR MEMBERS ..	22
a. The CPP may not survive legal challenge	22
b. The CPP would have a significant adverse effect	24
i. The CPP would negatively impact Seminole.....	24
ii. The CPP would negatively impact Florida by eliminating fuel diversity	27
4. CONCLUSION	35

1. EXECUTIVE SUMMARY OF WRITTEN TESTIMONY

Seminole Electric Cooperative ("Seminole") is a not-for-profit generation and transmission ("G&T") cooperative, serving approximately 1.4 million people and businesses in Florida via nine Member distribution electric cooperatives ("Members"). Seminole and its Members provide essential electric service in primarily rural areas of Florida stretching from west of Tallahassee to south of Lake Okeechobee, through a combination of coal- and gas-fired generation assets and power purchase agreements. Seminole has significant concerns about the legal and technical validity of the Environmental Protection Agency's ("EPA") Existing-Source Proposal, termed the Clean Power Plan ("CPP"), and the proposal's substantial impacts on Seminole, its Members, and their consumers, Florida's electric system, and the citizens of Florida. We believe that Chairman Whitfield's "Ratepayer Protection Act" will provide both Seminole, and the State of Florida, with significant protections against massive rate hikes and damage to the reliability of Florida's grid due to EPA's CPP.

EPA's own modeling projects that more than 90 percent of Florida's coal-fired generation would be forced to prematurely retire in order to achieve Florida's goal, a 38 percent reduction in greenhouse gases ("GHG"), specifically carbon

dioxide ("CO₂"). This includes Seminole's 1,300 megawatt ("MW") coal-fired facility. Serious fuel diversity, reliability, and cost concerns would result if, as EPA projects, natural gas-fired combined-cycle ("NGCC") units are required to produce more than 85 percent of Florida's electricity in 2025, and coal-fired units less than 2 percent. The truth is that Florida cannot comply with EPA's proposal using its existing utility investments, and the overall utility cost impacts would likely total in the billions - and perhaps tens of billions - of dollars. Moreover, Florida is disproportionately impacted. Florida's goal is more than twice that of several other states and more than 25 percent above the national average. EPA's goals also penalize Florida for its already-significant percentage of gas-fired generation.

Seminole, in particular, would suffer substantial harm as a result of EPA's proposal, a reality that EPA has failed to, but must, address. EPA projects that Seminole would lose at least 20 years of remaining useful life of its coal-fired units, and operate its gas-fired facility at a substantially reduced capacity; the cost of these losses, in addition to the cost of replacement generation, would be borne by its Members and their consumers. EPA also does not recognize Florida's unique characteristics, such as its peninsular geography and

accompanying transmission constraints, reliability concerns from over-reliance on a single fuel, limited options for renewable power, and its existing statutory and regulatory framework. EPA must take these important factors into account and correct the numerous flaws in its proposal.

Regarding legal flaws, there is serious doubt if EPA has the authority to issue ANY proposal regulating GHGs from existing electricity generating units ("EGUs"). Even assuming such authority, EPA's proposal contains numerous other legal flaws, such as EPA's lack of authority to set national energy policy, its usurpation of state authority, its regulation of entities outside-the-fence, its arbitrary deadlines, and its failure to provide states with a meaningful opportunity to consider an EGU's remaining useful life.

EPA's proposal also contains numerous technical flaws, such as the reliance on inaccurate data and false assumptions in its Building Blocks, goal calculations, and compliance modeling. For example, in Building Block 1, EPA's 6 percent heat-rate improvement assumption is clearly erroneous, especially for units like Seminole's, which have already maximized heat rate. In Building Block 2, EPA failed to address the feasibility of increasing NGCC capacity to 70 percent, including whether

sufficient natural gas is available on a national, regional, state or local level, whether there is adequate gas-pipeline infrastructure, whether there is adequate transmission infrastructure, and what impacts such a shift will have on fuel diversity and reliability. In Building Block 3, EPA misinterpreted and inappropriately applied the renewable portfolio standard of a single state to the entire southeast region, including Florida. Moreover, in Building Block 4, EPA failed to recognize that consumer behavior determines how demand-side energy efficiency programs will be implemented.

Accordingly, Seminole has requested that EPA withdraw its proposal, revise its Building Blocks as legally and technically required, and correct its inaccurate data and false assumptions before it takes any further steps to promulgate this rule.

Should the EPA fail to withdraw, or significantly revise, its proposal, Seminole believes that Chairman Whitfield's "Ratepayer Protection Act" would protect Seminole, our Member cooperatives, and the State of Florida from suffering irreparable harm economically and to the reliability of our grid. First, the Act would prevent Seminole from expending considerable time, effort, and capital on complying with

regulations that may eventually be invalidated by the courts.

Second, the bill would provide that:

No State shall be required to adopt or submit a State plan, and no State or entity within a State shall become subject to a Federal plan . . . if the Governor of such State makes a determination, and notifies the Administrator of the Environmental Protection Agency, that implementation of the State or Federal plan would . . . have a significant adverse effect on the State's residential, commercial, or industrial ratepayers . . . or . . . have a significant adverse effect on the reliability of the State's electricity system.

Seminole, the Florida Electric Power Coordinating Group (a group consisting of Florida investor-owned electric utilities, rural electric cooperatives, and municipal electric utilities), Florida's Public Service Commission, the Florida Office of Public Counsel, the Florida Department of Agriculture, the Florida Department of Environmental Protection, and the Florida Electric Cooperative Association have all determined that the CPP as proposed would have significant adverse effects on both ratepayers and the reliability of Florida's electrical system. As such, we welcome the protections of the "Ratepayer Protection Act" and look forward to its swift passage.

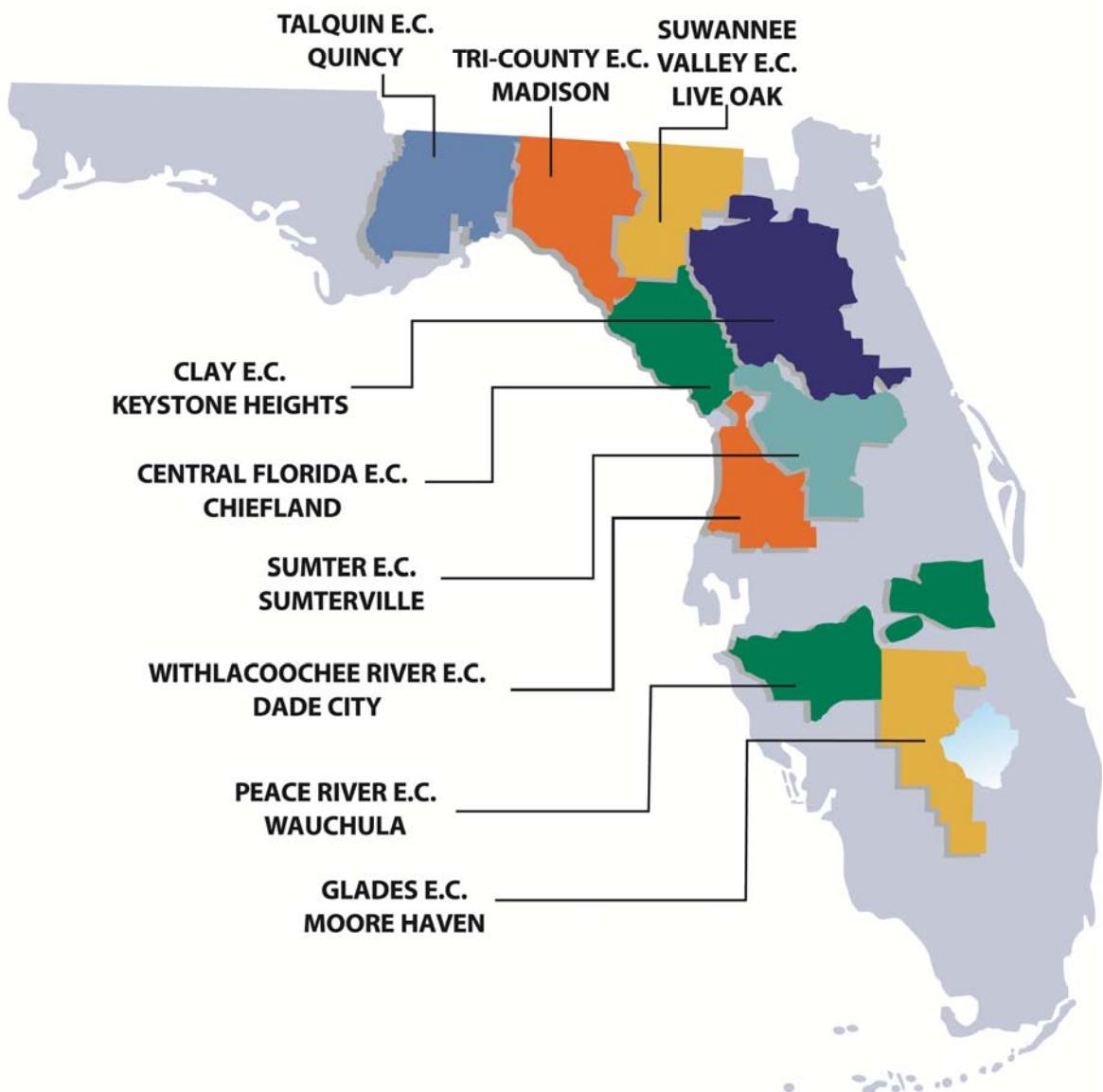
2. SEMINOLE'S COOPERATIVE SYSTEM

a. Introduction

Seminole is one of the largest, not-for-profit, generation and transmission cooperatives in the country. Seminole was founded in 1948, under the Rural Electric Administration's Electric Cooperative Corporation Act, and became fully operational as a G&T in 1976. Seminole strives to provide reliable, competitively priced, wholesale electric power to its nine Member distribution electric cooperatives. Seminole's Members include:

- Central Florida Electric Cooperative
- Clay Electric Cooperative
- Glades Electric Cooperative
- Peace River Electric Cooperative
- Sumter Electric Cooperative
- Suwannee Valley Electric Cooperative
- Talquin Electric Cooperative
- Tri-County Electric Cooperative
- Withlacoochee River Electric Cooperative

Seminole's Member Cooperatives



Collectively, Seminole's Members serve an average of 14 consumers per mile of line - although this number varies considerably across the state depending on growth and location. For comparison purposes, in Florida, investor-owned utilities typically serve an average of 57 consumers per mile. Nationally, the average is 34 consumers per mile for investor-owned utilities and 48 for municipalities. This is significant, as electric cooperatives must maintain the same utility infrastructure as investor-owned utilities and municipals with fewer consumers to share the associated costs, and in areas where for-profit utilities were unwilling or unable to extend service.

Seminole is also greatly concerned about the economic impact the rule will have on its Members' consumers, a factor that EPA must take into consideration. Based on a 2011 survey, the residential customers Seminole's Members serve are predominantly rural, approximately one-third of which have household incomes below the poverty level. More than 75 percent have household incomes less than \$75,000. Lower-income households spend a substantially higher percentage of their income on electricity usage. Accordingly, any change in rates as a result of EPA's proposal will impact them disproportionately.

Seminole's primary generation resources include the Seminole Generating Station ("SGS") in northeast Florida, and the Richard J. Midulla Generating Station ("MGS") in south central Florida. Seminole also maintains a suite of purchase power agreements to meet demand.

b. Seminole Generating Station (SGS)

In 1978, Congress enacted the Powerplant and Industrial Fuel Use Act, which restricted new power plants from using oil or natural gas for power generation and encouraged the use of coal. This was the same time that Seminole was developing plans to build a generating facility to meet its Members' demand. Seminole decided to build a coal-fired plant because it did not have another viable option. EPA issued Seminole a prevention of significant deterioration ("PSD") permit in 1979 to construct and operate SGS in Putnam County, near the St. John's River, south of Jacksonville, and it began commercial operation in 1984.

SGS consists of two, 650-MW coal-fired generating units. In 2014, Seminole generated more than 50 percent of the energy its Members needed from these coal-fired units. In past years, the portion of energy provided to the Members from SGS has been even higher. Throughout the past 17 years, SGS has had an average

capacity factor of 80 percent. In short, this efficient, clean, coal-fired power plant has been and continues to be the primary work-horse in Seminole's system, and it is capable of continuing to serve in this capacity for many years to come.

SGS employs approximately 300 hard-working Floridians in rural Putnam County. By comparison, MGS employs approximately 30. Should the EPA's CPP be finalized, Seminole's coal-fired power plant will be forced to close - leaving those 300 skilled employees without a job. Additionally, SGS relies on hundreds of skilled contractors to assist during maintenance outages and capital project implementation. For example, in 2012 SGS had more than 650 contractor personnel onsite at one time to assist during a maintenance outage. For 2013, contractor personnel exceeded 550, and during the 2014 spring outage, SGS had more than 400 contractor personnel onsite. On March 11th of this year, SGS had 732 contractors on site. All of these contractor personnel jobs will no longer be needed should the plant close early. SGS also has a long-standing working relationship with an adjacent wallboard facility, Continental Building Products ("Continental"), which converts the byproduct from an SGS environmental control system into wallboard. Continental employs approximately 100 employees and depends on the coal-based byproduct for wallboard production. Without coal and access to

this byproduct, jobs at Continental will also be lost in this rural community.

Putnam County has been designated as both a State Rural Enterprise Zone and a Rural Area of Critical Economic Concern. Portions of Putnam County are within a Federal Historically Underutilized Business Zone. As such, this is not an area in rural Florida that can afford to lose nearly 400 jobs directly, and hundreds more indirectly, as a result of EPA's regulation. To place even greater emphasis on this issue, Seminole is also the largest taxpayer in Putnam County. Seminole paid more than \$5 million in property taxes in both 2013 and 2014. Putnam County cannot afford to lose Seminole's coal-fired power plant or any of the jobs associated with the facility.

i. Significant Investments in Environmental Controls

When constructed and brought online in 1984, SGS was outfitted with advanced environmental controls -- electrostatic precipitators and wet limestone flue gas desulfurization ("FGD"). Seminole has invested more than \$530 million in state-of-the-art environmental control technology at SGS. In 2005, as a result of EPA's Clean Air Interstate Rule ("CAIR"), Seminole began evaluating additional strategies to reduce emissions of sulfur dioxide ("SO₂") and nitrogen oxide ("NO_x") to the levels

required under the new rule by 2009. Various system modifications and allowance purchasing strategies were evaluated for compliance. Beginning in 2006, Seminole spent \$177.2 million to install selective catalytic reduction ("SCR") systems on both Units 1 and 2 at SGS. These additions included new structural steel, ductwork, catalyst reactors, new induced draft fans and motors, new auxiliary transformers, and the installation of steam coil air heaters. In 2011, Seminole spent an additional \$4.6 million to install the third layer of its SCR catalyst. In 2014, Seminole continued to invest in the excellent performance of the SCR system by replacing the middle layer of catalyst in Unit 2 at a cost of \$2 million. A similar project with similar cost is planned for Unit 1 in the Spring of 2015.

In order to control a secondary reaction of the SCR system, Seminole also installed a \$9.9 million sulfur trioxide ("SO₃") removal system. This system injects hydrated lime into the flue gas in order to prevent the formation of sulfuric acid. Seminole has plans to further invest in upgrading this system in 2015. In order to further reduce SO₂ emissions, Seminole upgraded its FGD system at a cost of \$68.7 million. Seminole has also installed low-NO_x burners to minimize excess air firing. In total, Seminole has invested more than \$262.4 million since 2006 installing emissions control equipment to comply with EPA

requirements (primarily CAIR), and more than \$530 million on emissions control equipment since SGS was placed in-service. In summary, Seminole has invested and continues to invest in maintaining excellent environmental quality control systems at SGS.

These investments, while necessary to comply with regulations, have caused electricity rates to rise. As stated above, Seminole is a not-for-profit cooperative, and its costs are directly reflected in its rates. Further, interest on debt, greater operation and maintenance expenses, and parasitic loads all contribute to higher costs to the Members' consumers. If SGS were to be decommissioned prior to the end of its useful life, the net book value will have to be retired, written off, and collected from our Members, along with the interest expense on debt that was borrowed to match the expected useful life.

ii. Outstanding Debt Owed

Seminole, as a rural generation and transmission cooperative, has primarily relied on capital borrowed from the Federal Financing Bank and loan guarantees from the Rural Utilities Service ("RUS") for the construction of its generation fleet and capital improvements to its facilities, primarily involving environmental controls. Currently, loans related to

SGS account for more than 75 percent of Seminole's total outstanding debt. These loans are secured by Seminole's Trust Indenture. If SGS were to be retired prior to the end of its useful life in order to comply with EPA's CPP, the debt service related to these loans would continue to impact the electricity rates paid by our Members. Most of Seminole's loans also contain significant prepayment interest penalties, so a strategy to prepay the debt would only further increase the cost paid by our Members.

iii. Remaining Useful Life

EPA declares that states are free to consider the remaining useful life of a unit in establishing the state standards. Of course, the Clean Air Act ("CAA") expressly allows for such consideration. But EPA's approach of imposing very strict state goals negates a state's ability to consider meaningfully the remaining useful life of a particular unit; EPA provides only faux flexibility. As noted below, EPA's Integrated Planning Model ("IPM") projects that 91 percent of Florida's coal-fired capacity will retire by 2025, including SGS Units 1 and 2. This is far short of SGS' remaining useful life. In 2004 and 2005, Seminole commissioned Burns and McDonnell to prepare life appraisal reports for SGS Unit 1, SGS Unit 2, and common facilities.

In the reports, Burns and McDonnell indicated that based on their review and Seminole's continued positive operational and maintenance practices, SGS should realize a remaining useful life of 40 years, through 2045. This date corresponds to the end of the Seminole's Wholesale Power Contracts with its Members, and also covers the last loan related to emission control equipment at SGS, which matures in 2042.

If SGS were retired prior to the end of its useful life, the remaining net book value (stranded asset) would be required to be written off and the expense would be paid by our Members. The Members would continue to pay the fixed costs related to SGS without receiving any energy or capacity from its operation. Seminole will still have to serve the full requirements of our Members, and the replacement capacity related to the early retirement of SGS will either have to be constructed or purchased. This will cause our Members to pay for both the stranded asset and the replacement capacity at the same time.

c. Midulla Generating Station (MGS)

MGS is an 810-MW facility located in Hardee County that uses natural gas as its primary fuel. The facility consists of a 500-MW combined-cycle unit, which began commercial operation in

2002, and 310 MW of peaking capacity, which Seminole added in 2006. The combined-cycle unit has historically operated at a capacity factor between 50-70 percent. The peaking units consist of five, Pratt & Whitney aeroderivative FT-8 Twin-Pacs, and have historically been utilized at a capacity factor of less than 11 percent. Each Twin-Pac, in fact, is limited to 2,500 hours of operation per year – 2,000 hours on natural gas and 500 on oil – by express condition of its Title V permit. Accordingly, these peaking units are not subject to EPA's proposal.

d. Power Purchase Agreements / Renewable Energy Portfolio

Seminole works to maintain a balanced and diversified generation portfolio that includes SGS and MGS, as well as capacity and energy provided through short-, medium-, and long-term purchased power agreements ("PPAs") with other utilities, independent power producers, and government entities. These resources reflect a mix of technologies and fuel types, including one of the state's largest renewable energy portfolios, although Seminole sells a portion of the renewable energy credits ("RECs") associated with its renewable generation to third parties, which can use the RECs to meet mandatory or voluntary renewable requirements. The specific amount of generation Seminole purchases from PPAs varies year to year, but on average, PPAs account for around 25 percent of our total

resources. The balance and diversity in Seminole's generation and PPA mix reduces exposure to changing market conditions, helping keep rates competitive. Fuel diversity is also of paramount importance for Seminole and Florida due to its unique geographic location and already-heavy reliance on out-of-state natural gas supplies.

Seminole has had a specific policy in place for years to acquire additional renewable resources, either through ownership or PPAs. Specifically, Seminole's Board Policy No. 308 expresses its commitment to develop and utilize renewable energy resources, particularly where cost-effective. This has resulted in Seminole entering into numerous PPAs for renewable generation. Accordingly, the reasonably available and cost-effective renewable options in Florida are already being utilized, and EPA's assumption that Florida can do substantially more is erroneous.

e. Seminole's Transmission System

Seminole owns more than 350 circuit miles of transmission that interconnect Seminole's electric generating plants with Florida's transmission grid. Seminole also relies on third party transmission providers to reliably deliver electricity to our Members. Grid reliability, as a result of re-dispatching

existing NGCC facilities to maintain an average 70 percent capacity factor, as anticipated in EPA's Building Block 2, is of great concern to Seminole. In 2014, 58 percent of Seminole's energy requirement was served via our owned coal-fired facilities and generator tie lines to the Florida grid. Seminole does not have sufficient owned or contracted NGCC facilities or transmission facilities to adequately serve load without our coal-fired units. Florida's transmission grid is congested, as described further below, and it is unlikely that Seminole would be able to obtain PPAs or construct new NGCC facilities without creating additional transmission constraints.

Regional studies performed to evaluate the dispatch of natural gas-fired plants versus coal in an uneconomic fashion resulted in severe transmission congestion throughout the Florida Region. The bulk transmission system was designed around baseload coal generation. Dispatching out of economics (such as making today's intermediate-class units run at baseload) would cause power swings to flow across transmission lines/corridors that were not designed to transport baseload generation. In addition, Seminole's experience in trying to contract with third parties via purchase power transactions from existing generating facilities has shown on multiple occasions that the existing

transmission system interconnected to these respective facilities is congested, and it is not economically feasible.

With the exception of a limited amount of electricity that can be transported into the state (2,800 MW firm), Florida is essentially an island that relies on generating units within the state to serve approximately 52,000 MW of load. If the proposed rule were to take effect prior to sufficient generation or transmission infrastructure being constructed, significant reactive deficiencies may also occur throughout the state resulting in the possibility of depressed system voltages and voltage stability concerns during normal (steady-state) conditions and contingency events.

EPA has failed to assess transmission reliability impacts in Florida, including the total reactive power deficiency. Florida must have sufficient time to evaluate and model the reliability impacts due to the loss of generating capacity, which includes a review of the impact on complying with North American Electric Reliability Corporation ("NERC") Reliability Standards.

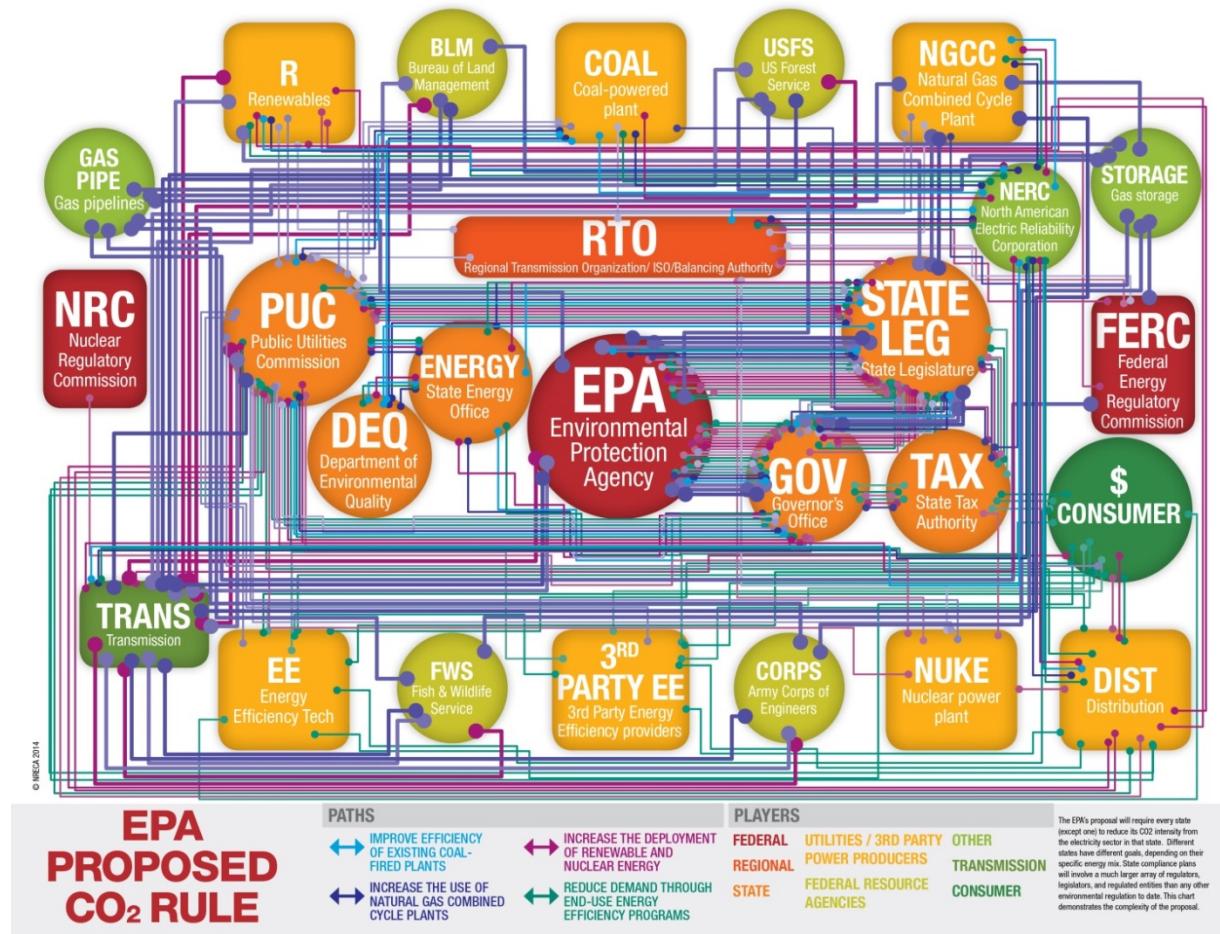
3. THE "RATEPAYER PROTECTION ACT" WOULD PROTECT OUR MEMBERS

Sub-Committee Chairman Whitfield's "Ratepayer Protection Act" would protect Seminole's Members by ensuring that we do not have to expend considerable time, effort, and capital on complying with regulations that may eventually be invalidated by the courts. Second, the bill would provide that no state shall be required to implement a state or federal plan that the state's governor, in consultation with other relevant state officials, determines would have a significant adverse effect on (i) retail, commercial, or industrial ratepayers; or (ii) the reliability of the state's electricity system.

a. The CPP may not survive legal challenge

EPA's proposal contains fundamental legal problems. In sum, there is serious doubt whether EPA has the authority to issue ANY proposal regulating GHGs from existing EGUs. Briefing is already underway in the D.C. Circuit Court, and oral arguments are scheduled for April 16th, regarding the plain language of CAA Section 111(d), which precludes EPA from promulgating rules for existing EGUs under Section 111(d) when EPA has already issued a regulation covering EGUs under Section 112. If this is not a sufficient prohibition, the CAA further precludes EPA from issuing a rule for existing sources under 111(d) until it has issued a valid rule for new sources. There are serious legal

questions regarding the validity of such rules, if EPA finalizes the rule in its current form. Furthermore, EPA itself has stated that 111(d) rules are only appropriate for specialized types of units that emit discrete types of pollutants; they are NOT appropriate for pollutant emissions from diverse and numerous sources, such as GHGs, and CO₂ specifically. See 40 Fed. Reg. 53340 (Nov. 17, 1975). The regulatory web the CPP weaves is on questionable legal ground.



b. The CPP would have a significant adverse effect

In Florida, the CPP as proposed, would have a "significant adverse effect on both retail, commercial, or industrial ratepayers; and the reliability of the state's electricity system." In written testimony provided to this committee for a March 17 hearing, Art Graham, the Chairman of the Florida Public Service Commission, stated, "Consequently, representation of potential increases of 25-50% in some retail electric rates is a credible estimate of the level of Florida's Clean Power Plan costs." Taking into account these significant rate increases, and concerns with reliability, the "Ratepayer Protection Act" would allow the Governor of Florida to delay the implementation of the plan to the benefit of Florida consumers.

i. The CPP would negatively impact Seminole

EPA's IPM compliance model predicts that Seminole's coal-fired power plant, SGS, would be forced to shut down under EPA's proposal. These two coal units were constructed in the early 1980's in response to federal laws that prohibited the use of natural gas to generate electricity. The units were also constructed to fulfill the legal obligation of Seminole and its Members to provide electricity to their Member consumers in Florida. Electricity from SGS is used by Seminole's Members to fulfill their legal obligation to serve Member consumers within

the distribution cooperative's established service territories. SGS is a significant asset that is relied upon by Seminole and its Members to fulfill that obligation, and SGS has significant economic value remaining. If, as predicted, EPA's proposal forces SGS to completely shut down before its useful life has run, Seminole's enormous, undepreciated investment in SGS will be rendered worthless. That result will leave Seminole and its Members with a "stranded asset", with significant remaining economic value and debt. Seminole and its Members arguably will be legally entitled to recover the costs incurred under this proposed government regulation. Further, EPA's IPM modeling and its economic impact analysis fail to account for the real costs of "stranded assets" such as SGS that will directly result from EPA's proposal or to consider the impact of those "stranded assets" on the electricity generating industry in general, electrical transmission reliability, and on the future cost of electricity.

EPA's proposal would have a devastating economic impact on Seminole. As noted in Section 3, forcing SGS to completely shut down, as EPA predicts will happen under its analysis of its proposal, would eliminate all economically viable use of Seminole's assets at SGS. While the land upon which SGS was built may retain a nominal value, the hundreds of millions of

dollars Seminole invested into SGS, and has not yet recovered, would be completely lost; a result that undoubtedly constitutes a severe economic impact to Seminole and its Members.

In addition to stripping Seminole of all economically-viable use of its SGS property, the proposal also appears to completely eliminate Seminole's distinct investment-backed expectations in SGS. As previously discussed, Seminole built SGS in 1984, pursuant to the requirements of the federal Powerplant and Industrial Fuel Use Act of 1978, which restricted new power plants from using oil or natural gas and encouraged the use of coal. SGS was built as a coal-fired power plant because the federal regulatory environment of 1984 left Seminole with no other viable fuel options to meet its legal obligation to serve its customers. At a time when the government encouraged the use of coal, and prohibited the use of oil and natural gas, Seminole reasonably expected that its coal-fired power generation at SGS would not be regulated out of the market (by the very government that required it to build a coal-fired plant) during its useful life. Based on the regulatory environment of 1984, EPA's 2014 CPP was completely unforeseeable. Seminole relied on the federal government's directive to construct coal units, and spent hundreds of millions of dollars since then complying with subsequent environmental rules.

**ii. The CPP would negatively impact Florida by
eliminating fuel diversity**

The following pages contain two maps. The first shows the location of the 30 coal-fired generating units in Florida today, and the second shows the only three units that would remain if the CPP were adopted as proposed. EPA's proposal assumes adequate natural gas supply is available to replace these retiring coal units with gas-fired electric generation. This assumption does not account for fuel supply risks associated with the production, processing, storage and transportation of natural gas supply to power plants in peninsular Florida.

Unlike solid fuel (coal) and liquid fuel (oil), natural gas is not easily stored due to its physical characteristics that require significantly more volume per unit of energy stored. Natural gas storage facilities must also possess specific characteristics to safely and economically store a material amount of fuel for use during periods of supply disruption.

All of the natural gas consumed by EGUs in Florida is produced outside the state and imported via one of the interstate gas pipelines. Historically, the vast majority of the gas supply transported into Florida was produced along the gulf

coast (Alabama, Mississippi, Louisiana, Texas) from shallow and deep-water offshore platforms. Offshore natural gas production has declined in recent years and onshore, unconventional gas production is making up an increasingly large percentage of the supply transported into Florida. This supply originates from production regions even further away from the state (Oklahoma, Arkansas, north Louisiana, and south Texas) and is dependent on multiple interstate pipelines in order to reach Florida. Florida's increased reliance on the 'upstream' pipeline network creates a new form of risk for the state that is not addressed by EPA's proposal and one that would be exacerbated with the removal of coal and oil-fired generation and the associated storability nature of their respective fuels within the state.

Currently, Seminole holds enough firm gas transportation capacity to dispatch its existing owned and tolled (purchased power) NGCC facilities at a 70 percent capacity factor, however; this will reduce Seminole's available gas transportation capacity for use in simple cycle gas facilities during periods of peak demand. Should Seminole be responsible for constructing NGCC generation capacity to replace its coal-fired facilities and operate those at a 70 percent capacity factor, Seminole will need a minimum of 150,000 decatherms per day ("Dths/day") of incremental firm gas transportation capacity to meet this need.

To put that into perspective, the Gulfstream Natural Gas System pipeline is fully subscribed and the Florida Gas Transmission ("FGT") pipeline has varying volumes of unsubscribed capacity posted on its website as of March 19, 2015. These range from 0 Dths/day in summer 2016 to approximately 110,000 Dths/day during the 2017-2021 period. Beginning November 1, 2021, and beyond, FGT has 139,000 Dths/day of unsubscribed capacity. If other utilities are forced to take similar actions, there will be insufficient gas transportation capacity available into the state of Florida to support the required NGCC generation. If a third pipeline is constructed, which Seminole understands is required to meet Florida's gas needs regardless of EPA's CPP, that third pipeline will need to be expanded beyond its currently contemplated size to support this incremental gas demand from NGCC facilities. NERC has also expressed concern with EPA's proposal and its lack of consideration of pipeline capacity restraints¹.

The CPP does not provide ample time for EGUs to negotiate contracts for the requisite gas supply and transportation capacity and for the permitting and construction of the necessary pipeline infrastructure. Contracting decisions made with the urgency to comply with EPA's proposed timelines may not

¹ See North American Electric Reliability Corporation, Potential Reliability Impacts of EPA's Proposed Clean Power Plan, 9-10 (November 2014).

be the optimal decisions for consumers in the long-term. Gas transportation commitments will likely have a 20-year minimum time horizon meaning that the next generation will continue to pay for the cost of hasty decisions.

Fuel diversity in Florida and nationally cannot be stressed enough, and its importance is great enough to warrant prior regulation at the federal level (see discussion above regarding the Fuel Use Act). Fuel diversity has served the United States well through frequent periods of fuel supply limitations, many of them related to natural gas disruptions (e.g., hurricanes Katrina and Rita) resulting in little impact to electric grid reliability.

The extreme cold of January and February 2014, particularly in the Mid-Atlantic and Northeast states, provided a peek into the potential consequences of reducing fuel diversity and over-concentrating EGU demand into natural gas. With many EGUs eliminating their ability to utilize fuel oil in order to comply with environmental regulations, these units instead relied solely on natural gas, whose spot prices reached record levels exceeding \$100/MMBtu in areas without adequate supply. For example, in the Northeast, the daily price of natural gas maxed out at \$123.81/MMBtu in January of 2014. Simultaneously, at the

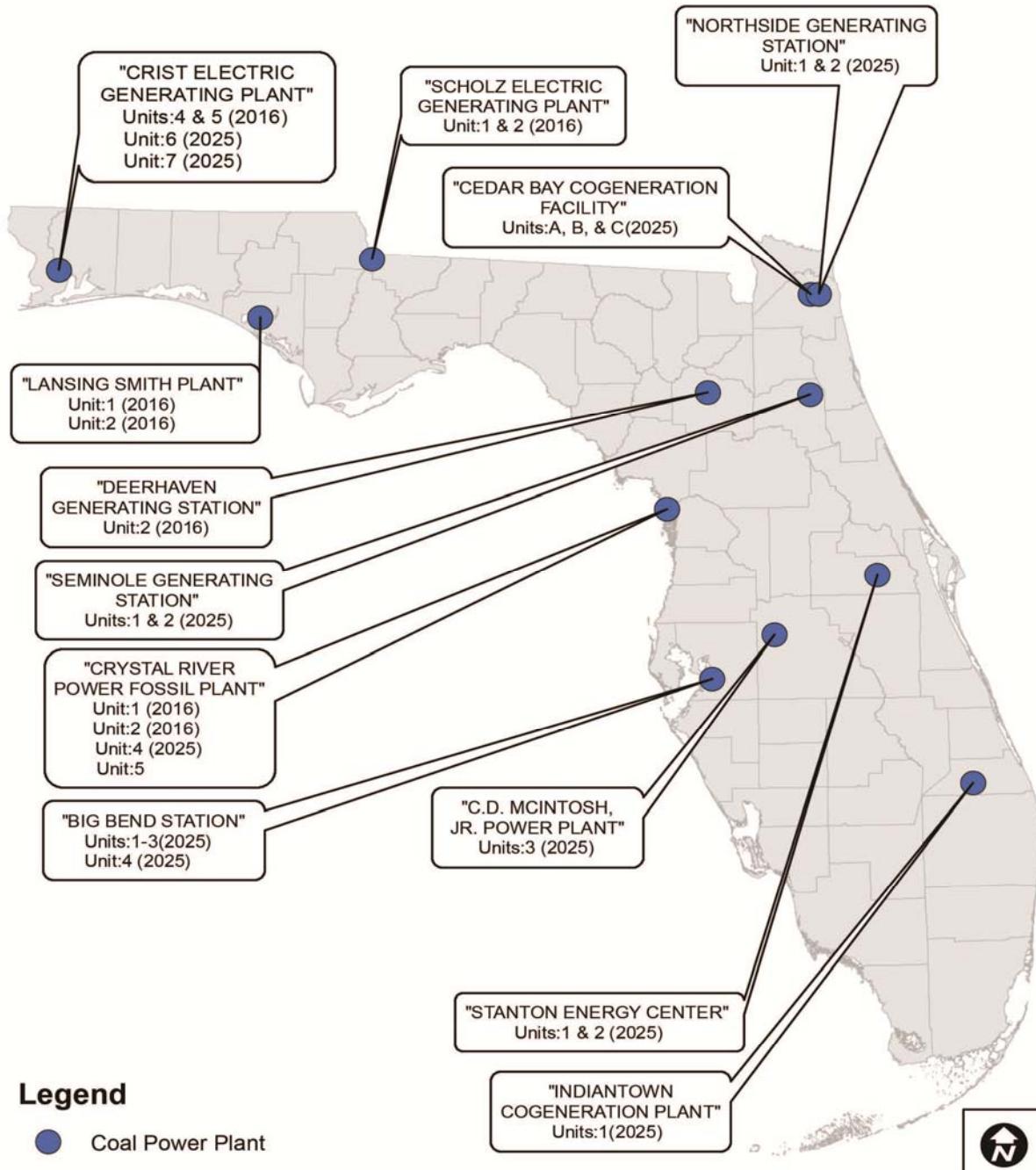
Henry Hub, where supply was not impacted by infrastructure constraints, the price was only \$4.59/MMBtu. This pattern repeated itself in February 2015 when the price of gas in the Northeast reached \$46.00/MMBtu at the same time that the Henry Hub price was only \$2.93/MMBtu. The rapid price increases and extreme volatility of the 2014 and 2015 gas markets, associated with supply constraints, likely foreshadows what would happen in Florida if the CPP were to take effect without the needed gas infrastructure. As EPA's proposal results in additional migration from coal to gas as a fuel choice, cost will become a secondary problem when EGUs are faced with gas supply shortages and reliability is jeopardized.

This fuel diversity need is especially critical for Florida given its geographic location, lack of native energy production capacity and limited electric transmission import capability. With the exception of a limited amount of electricity that can be transported into the state, Florida is essentially an island that relies on generating units within the state and the necessary fuel supply for those units. Florida's current electric reliability is dependent on EGUs' ability to import fuel supply for either immediate consumption, or to store it for consumption later. Coal is a storable fuel source in Florida while natural gas is not. Florida does not have the geological

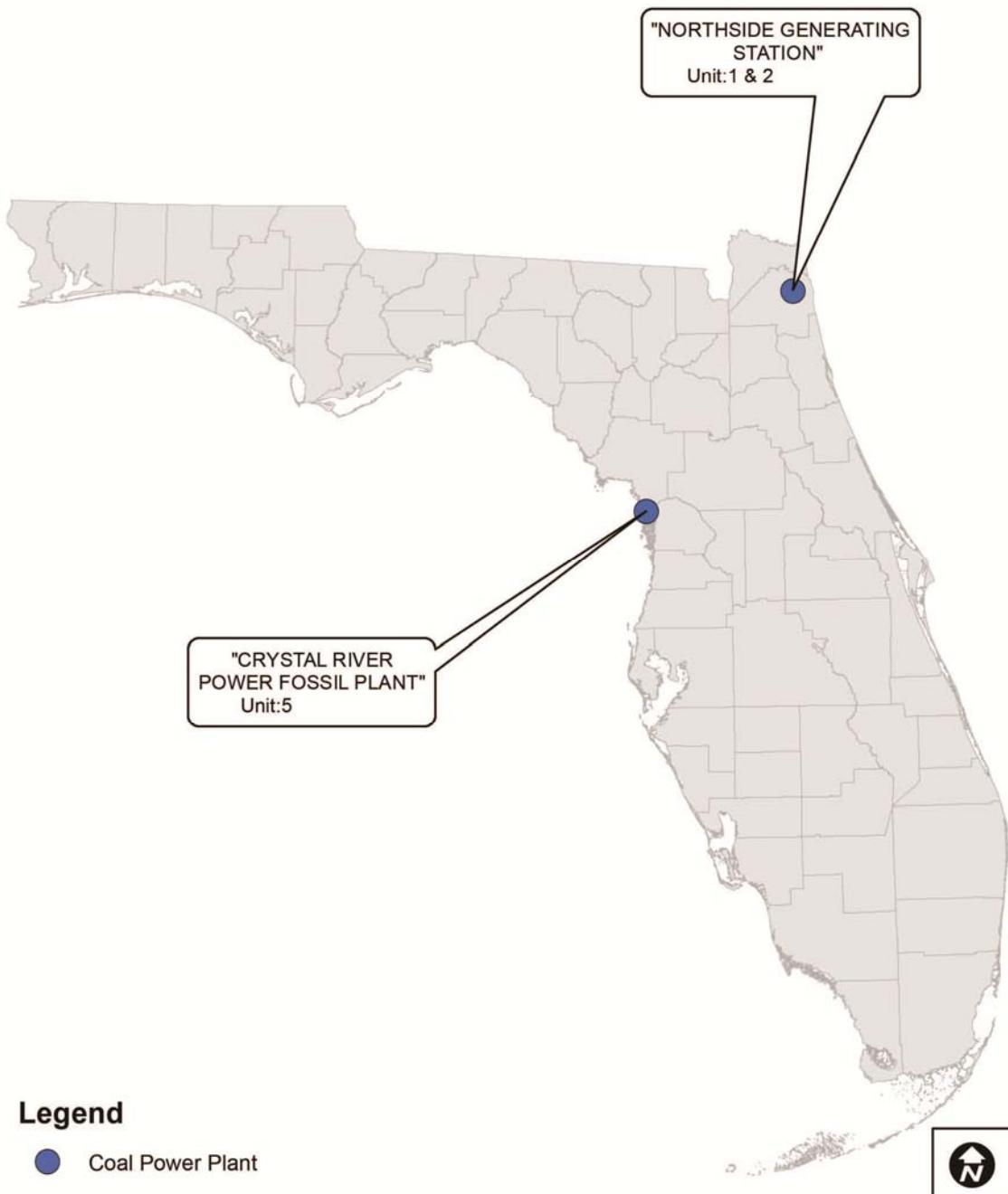
formations to economically store a material amount of natural gas underground. EPA's proposal must allow for a substantial amount of coal-fired electric generation to remain in Florida to ensure some level of fuel diversity and the resulting reliability benefits. To remove more than 90 percent of coal capacity from Florida as proposed by EPA would obligate Florida to rely solely on 'just in time' inventory for nearly all of its fuel supply, with reliability consequences for any disruptions in the supply chain.

Florida Coal Plants

Locations and retirement dates under the EPA's Clean Power Plan



Remaining Florida Coal Plants in Service Under the EPA's Clean Power Plan



Legend

- Coal Power Plant

4. CONCLUSION

Seminole has serious concerns regarding EPA's CPP for numerous legal, technical, and policy reasons. Accordingly, Seminole requests that EPA withdraw this proposal, and meaningfully address the issues we have raised in this testimony, as well as expanded comments that were submitted to the EPA during the rulemaking process.

Failing this, Seminole wholeheartedly supports the "Ratepayer Protection Act" to protect our members, and Florida consumers, from the disastrous effects of this proposed regulation.

Seminole appreciates the opportunity to provide testimony to the House Energy and Commerce Subcommittee on Energy and Power. If you have any follow-up questions, or wish to discuss this testimony, please do not hesitate to contact us at (813)-739-1354.

Sincerely,

Lisa D. Johnson

Chief Executive Officer & General Manager