

Before the Commission

**DECLARATION OF MR. RENE SILVA IN SUPPORT OF FPL'S ANSWER
OPPOSING SACE MOTION TO STAY RESTART**

A. Declarant Background

- My educational background and qualifications include receiving a Bachelor of Science in Engineering Science in 1974 from the University of Michigan; a Master's Degree in Mechanical Engineering in 1978 from San Jose State University; and a Master's Degree in Business Administration in 1986 from the University of Miami. From 1974 until 1978, I was employed by the Nuclear Energy Division of the General Electric Company performing heat transfer analyses in support of nuclear fuel design. I joined the Fuel Resources Department of FPL in 1978, as a fuel engineer, responsible for purchasing nuclear fuel. In 1987, I became Manager of Fossil Fuel, responsible for FPL's purchases of fuel oil, natural gas, and coal. In 1998, I was

named Manager of Business Services in the Power Generation Division (“PGD”) of FPL. In that capacity, I managed (a) the development of PGD’s long-term plan for the effective and efficient construction, operation and maintenance of FPL’s fossil generating plants, (b) the preparation of PGD annual budgets and tracking of expenditures, and (c) the preparation of reports related to fossil generating plant performance. On May 1, 2002, I was appointed to my current position. I have filed testimony and appeared as an expert witness before the Florida Public Service Commission (“FPSC”) on numerous occasions regarding fuel costs and determinations of need for new generating resources, including new nuclear generation.

2. As Senior Director of Resource Assessment and Planning, I am responsible for developing FPL’s integrated resource plan (“IRP”), the primary objective of which is to ensure that FPL has the generation resources necessary to reliably meet the electricity needs of its customers at all times, under any conditions, at a reasonable cost, and in compliance with all applicable laws and regulations.

B. SACE’s Motion to Stay Restart of St. Lucie Unit 2

3. I have reviewed and am familiar with Southern Alliance for Clean Energy’s (“SACE”) motion to stay the restart of the St. Lucie Unit 2 reactor, which was filed with the Secretary on March 10, 2014.¹ I am also familiar with the Declaration provided by Mr. Arnold Gundersen in support of SACE’s motion for stay.²

¹ Southern Alliance for Clean Energy’s Motion to Stay Restart of St. Lucie Unit 2 Pending Conclusion of Hearing Regarding *De Facto* Amendment of Operating License and Request for Expedited Consideration (Mar. 10, 2014) (“SACE Motion”).

² Declaration of Arnold Gundersen (Mar. 9, 2014), Attachment 1 to Southern Alliance for Clean Energy’s Hearing Request Regarding *De Facto* Amendment of St. Lucie Unit 2 Operating License (Mar. 10, 2014) (“Gundersen Decl.”).

4. SACE erroneously states that a stay in the restart of St. Lucie Unit 2 nuclear reactor, would not negatively impact FPL's ability to serve the needs of its customers. SACE Motion at 7. SACE also erroneously states that FPL's reserve margin requirement is 15%. *Id.* at 8.
5. My Declaration addresses the erroneous claims raised by SACE to the effect that staying the restart of St. Lucie Unit 2 reactor would not harm FPL and its customers. On the contrary, granting the stay requested by SACE would needlessly cause irreparable harm to FPL and its customers or the public interest in three significant ways. First, it would increase the cost that FPL's customers would pay for electricity; second, it would negatively affect FPL's ability to reliably provide electricity to its customers when unplanned (but regularly recurring) conditions regarding load, generator outages and fuel deliveries develop; and third, it would result in an increase in air emissions such as sulfur dioxide ("SO₂"), nitrogen oxide ("NO_x") and carbon dioxide ("CO₂").

II. A STAY OF RESTART WOULD HARM FPL AND ITS CUSTOMERS

6. Any delay in the return to service of the St. Lucie Unit 2 reactor would irreparably harm FPL and its customers because it would increase the cost that FPL's customers would pay for electricity. When St. Lucie Unit 2 is in service it operates continuously because it produces electricity at the lowest cost of any firm generating capacity source in FPL's system. In the absence of the St. Lucie Unit 2 generation, other more costly sources of electricity such as gas generating units, coal generating units and oil generating units would have to produce more electricity at millions of dollars in higher costs to make up for the loss of nuclear generation. One of FPL's

primary business objectives is to provide low cost electric service to its customers. This objective would be frustrated by a stay of the restart of St. Lucie Unit 2. Therefore, granting a stay of the restart of St. Lucie Unit 2 would cause significantly higher energy costs for both FPL and its customers.

7. A delay in the return to service of the St. Lucie Unit 2 reactor would irreparably harm FPL and its customers because it would negatively affect FPL's ability to reliably provide electricity to its customers when unplanned (but regularly recurring) conditions regarding load, generator outages and fuel deliveries develop. FPL's minimum reserve margin criterion, approved by the FPSC, is 20%, not the 15% erroneously stated by SACE (SACE Motion at 8). In fact, the FPSC has repeatedly applied the 20% reserve margin minimum criterion in a number of regulatory proceedings to determine FPL's need for additional generation resources during the last ten years.
8. In addition, meeting the minimum reserve margin criterion alone does not ensure that FPL would be able to reliably meet the electricity needs of its customers when conditions differ significantly from those assumed in resource planning forecasts. For example, in January of 2010, unexpected cold weather raised electricity demand about 6,200 MW higher than forecasted. But because FPL's actual total capacity reserves were significantly higher than the 20% minimum criterion, FPL was able to serve the needs of its customers without interruption during that intense and extended cold spell. While a 20% minimum reserve margin is an appropriate planning criterion, there is clearly value to having a higher level of actual generating reserves available, especially when high levels of electricity demand arise. These ex-

traordinary conditions can and do occur in the summer as well as in the winter. Removing 845 MW of generating capacity would reduce FPL's ability to meet high levels of demand during similar weather conditions, especially when combined with unplanned, but regularly occurring generator outages.

9. Another key factor that is ignored in SACE's erroneous claim that a stay of the St. Lucie Unit 2 restart would have no negative impact on FPL's ability to provide reliable service is that St. Lucie Unit 2 provides much needed fuel diversity in FPL's system and thereby contributes to system reliability. In 2013, two thirds of the electricity FPL delivered to its customers was generated using natural gas, while almost one quarter was generated by nuclear units. Any reduction in electric generation from St. Lucie Unit 2 will increase FPL's dependence on natural gas because gas generation would make up more than 70% of the lost nuclear generation. Because all the gas delivered to FPL's generating units is transported over very long distances by means of only two interstate pipelines, any increase in reliance on natural gas generation reduces FPL's ability to serve its customers in the event of a gas supply or transportation interruption, however minor or short-lived. After a thorough review of the reliability issues, the FPSC has approved FPL's plan to mitigate this risk to system reliability by purchasing additional gas transportation capacity from a third, yet to be built, interstate pipeline. In the shorter term, any reduction in FPL's ability to generate electricity at its nuclear units would exacerbate the reliability risk. Granting a stay of the restart of St. Lucie Unit 2 would significantly reduce FPL's ability to reliably serve its customers under unforeseen but regularly occurring conditions that reflect departures from the base plan. Another of FPL's prima-

ry business objectives is to provide reliable service to all its customers under all conditions. This objective would also be frustrated by a stay of the restart of St. Lucie Unit 2. There is no way to cure an impairment of reliability after the fact. Therefore, granting a stay of the restart of St. Lucie Unit 2 would cause significant and irreparable harm to FPL and its customers.

III. A STAY OF RESTART WOULD HARM THE PUBLIC INTEREST

10. A delay in the return to service of St. Lucie Unit 2 would irreparably harm the public interest, not only because it would result in higher costs and lower reliability of electricity on the grid, but also because it would result in an increase in air emissions such as sulfur dioxide (“SO₂”), nitrogen oxide (“NO_x”) and carbon dioxide (“CO₂”). Unlike generating units that use fossil fuels, St. Lucie Unit 2 does not emit SO₂, NO_x, CO₂, particulates, or mercury. Accordingly, FPL, its customers and the public at large all benefit from the emission-free generation of electricity from St. Lucie Unit 2. But in the absence of St. Lucie Unit 2 generation, other sources of electricity such as gas generating units, coal generating units and oil generating units would have to produce more electricity to make up for the loss of nuclear generation. Because these fossil sources of electricity all contribute to the air emissions listed above, increased reliance on these sources to make up for the electricity that would have been produced by St. Lucie Unit 2 causes a significant increase in the emission of air pollutants. Thus, if St. Lucie Unit 2 were not to operate, FPL’s air emissions of SO₂, NO_x, and CO₂ would be substantially higher. Therefore, it is clear that staying the restart of St. Lucie Unit 2 would irreparably harm the public interest.

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Accord with 10 C.F.R. § 2.304(d)

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